

University News

- **University Objectives in the Changing World**
- **Science for the Masses**
- **New Policy of Technical Education**
- **Workshop on Eradication of Illiteracy**
- **Combating the Communal Virus**

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OSMANIA UNIVERSITY HYDERABAD-500 007, (A.P.)

Advertisement No. 3/86

Dated : 15th April 1986

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(ii) Relaxation in age to the extent of five years shall be granted to the candidates belonging to SC, ST & BC

(iii) 14%, 4% and 25% reservations are made for SCs, STs, and BCs respectively for the posts excluding Professor.

(iv) The selected candidates for the post Nos. 1, 2 & 3 shall have to work at P.G. Centre, Godavari Khani and shall have no claim for transfer to Colleges in City.

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S.R. Salokhe
Ag. REGISTRAR

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Scale of Pay

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Qualifications

A person with a good academic record with Doctoral Degree or equivalent published work. Evidence of being actively engaged in (i) research; or (ii) innovation in teaching methods; or (iii) Production of teaching materials.

About 5 years' experience of teaching and/or research provided that atleast three of these years were as Lecturer or in an equivalent position.

This condition may be relaxed in the case of candidates with outstanding research work.

R. Rajamanickam
REGISTRAR



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UNIVERSITY NEWS

VOL. XXIV

No. 17

Price

MAY 1

1986

Re. 1.00

*A Weekly Chronicle of Higher
Education published by the
Association of Indian Universities*

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University Objectives in the Changing World

Dr. (Mrs.) B. Regina Papa*

R. Dhandapani**

The mankind is facing a crisis—the crisis which is of no lesser magnitude and Sorokin suggests very forcefully that the crisis we are facing today is no ordinary crisis. The crisis that is imminent and likely to sweep the land during 2000 A.D. may be more dramatic than any of the preceding ones. The changes that are likely to take place due to the imminent crisis will be more extensive and the rate of change faster than ever before, since the twentieth century is the age of advancement and sophisticated technology.

By the turn of the Century, we shall be reaching a turning point not only as individuals and society but also as a civilisation and a planetary eco-system. It is a matter of survival, as Alwin Toffler likens the change 'as a process of invasion of our lives' and 'the future shock' will be 'a roaring current of change'—a current so powerful that it overturns institutions, shifts our values, and shakes the tools of our very foundation on which the planet is embedded.

A New Balance and Stance

A new balance has to be struck between the most advanced science and technology available to the human race and the Gandhian vision of the Idyllic green pastures, the village republic. Such a practical combination demands a total transformation of the society. The symbols, values, system of education, the flow of energy resources, scientific and industrial research need a thorough change. The future consciousness requires of us to adopt a new stance towards the future and it is all the more necessary to be aware of the role it plays in the present in order to successfully cope with the rapid change that is going to sweep the land.

Education as Change Agent

Education is the most potent instrument of social reform and is in itself a proper subject and object of reform. It is a very useful social agency not only for conserving but also reconstructing the culture and values. This process of education results in the individuals acquiring new knowledge, abilities and purposes which in turn help build a new outlook of life. Thus the individual is able to solve the problems of life more successfully and he/she also prepares himself/herself to exploit better the forces of nature and society to greater social advantage.

Importance of Objectives

(Alice said) "Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to", said that Cat.

"I don't know where." said Alice. "Then it doesn't matter which way you go" said the Cat.

—Lewis Carroll.

[Paper presented at the Fourth International Conference of
University Registrars & Administrators, New Delhi, 1986].

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Gandhigram.

*Opinions expressed in the articles
and reviews are individuals and
do not necessarily reflect the
policies of the Association*

Editor :

SUTINDER SINGH

Educational services always tend to lag behind the requirements and expectations of the society: new and emerging needs might not be met adequately—the old objectives may not be any longer valid. Constant updating of the curriculum to cater to the emerging and new trends is always necessary in order to make education an instrument of powerful social change.

The essential element in the entire educative process is the individual on whom all influences and experiences are concentrated. Since the 'the human factor' is the centre of education—his needs, interests and problems will only determine the nature of contents and programmes of education.

Indigenous Solutions

Instead of adopting models from the west, efforts must be made to evolve solutions to our own problems taking into account factors like economic backwardness and reaching large masses of people. Programmes of local relevance need to be taken up. "Packages" are to be prepared and disseminated through broadcasting as well as non-broadcasting modes.

Issues at Stake

The issues at stake are:
national integration;
developing human resources;
unemployment among the educated youth;
linking education as a subsystem with various sectors, (Education and production, education and employment and education and culture);
skills required and skills imparted; and
devising new programmes of studies and keeping pace with the profound repercussion on informatics.

Growing Mismatch

The whole system of education has become a question of growing 'mismatch' which is due to the imbalances between the skills required and the skills developed. The yearly enrolment in Indian universities has been rising by 15 per cent recently. It is estimated that at this rate of growth the total number of students in the universities may be of the order of eight millions by 2000 A.D. A problem that is going to be highlighted in this situation is the growing mismatch between the competence reflected by one degree and the real type of skills in demand in the available avenues of employment.

Lack of Prioritisation

Part of the problem is a 'lack of prioritisation' and

a tendency to spread physical and human resources too thinly over too many points to be effective. 'Insufficient accountability' and 'weak interaction' with the external areas of knowledge, learning, research which can provide points of advanced reference and comparison also add to the malaise.

Credibility Crisis

There are multiple challenges before education which include:

- (a) economic viability
- (b) purposeless instruction
- (c) deterioration of standards
- (d) politicisation on the campus

Besides, the 'mounting cost' compels the educational sub-system to cultivate a behaviour of growing dependence on Government resources. Thus whole sub-system tends to end up in 'a crisis of credibility'.

University Structure

In particular, the danger in emphasising the structural view of higher education was that, although structure meant no more than the relationship between the component parts, it was often taken to mean something so solid and immovable as to be beyond all hopes of reform. On the other hand, as Eric Ashty's concept of 'inner logic' or 'inertia' illustrated, his view did contain a truth, that higher education systems are relatively immobile and difficult to change.

Systems Approach

Higher education should be taken as a whole system made up of different but inter-related parts, e.g. its function for society and for the individual, its institutional structure, access, curricula etc. If these did not change in step with each other as the system grew from elite to mass to universal scales of student-intake, then tensions and conflicts between the parts would result and this would in turn threaten the stability or even the survival of the system.

Higher Education

The traditional university functions are teaching, research and extension; preservation of human knowledge and communicating it to younger generations. But learning is not an end in itself but a means to other ends. Manpower planning should not remain a pious wish. A systematic and planned basis of consultation and advice by university professors should be made available.

In addition to acquisition, transmission and application of knowledge, the universities have a responsibility to society. Inculcating work ethic, imparting national cohesion and curbing parochial and communal interpretations of the composite culture should be given top priority. The higher education should spark the element of creativity in an individual.

Seventh Plan Objectives

That perspective is that by the end of the century India becomes 'a modern, technologically progressive economy with expanding capacity to provide the basic material and cultural requisite of well-being for all people'. In terms of goals, this means elimination of poverty and creating conditions of near full employment, the satisfaction of basic needs of the people in terms of food, clothing and shelter, attainment of universal elementary education and access to health facilities for all.

Elitist to Mass Higher Education

Higher education has to be brought within the reach of a far-larger segment of the population at all ages by creating an "open sector" to include an "open university" (of television, radio and correspondence courses), libraries, museums, galleries, etc., with degrees and diplomas and also grants to students pursuing self-education by these means; by easing entry requirements; by charging all students half the cost of the teaching received; by providing generous grants to poor students shading into loans for rich ones; and by insisting on periodic re-certification, weaken the monopoly of the professions.

Computer: Its Relevance

The computer burst upon the scene around 1950. With its unprecedented power for analysis and dissemination of extremely varied kinds of data in unbelievable quantities and at mind-staggering speeds. It has become a major force behind the latest acceleration in knowledge-acquisition. Combined with other increasingly powerful analytical tools for observing the invisible universe around us, it has raised the rate of knowledge-acquisition to dumb founding speeds. CAD/CAL programmes could be effectively worked out in order to come to grips with the latest technological innovations.

Human Resource Development

The increase in the numbers of unviable colleges and rising tide of unemployment among educated youth already are shaking our very foundation. The alarming problem of the growth of population which increases, at an accelerated rate, brings pressure on

our economic and social institutions. Recognising the need to develop human resources as an essential pre-requisite of national reconstruction the only way out is universalisation of elementary education as early as possible.

Conclusion

To meet the oncoming challenge of gigantic proportions, the educational administrators have a onerous responsibility. The educational administrator should be creative and innovative, adaptable and a researcher so that he/she can keep pace with the 'changing times'. The interlinkages between the future and education could rightly be summed up, as Toffler has pointed out:

"All education springs from images of future and all education creates images of the future". □



UNIVERSITY NEWS

A Weekly Chronicle of Higher Education

Subscription Rates

	Inland Rs.	Foreign	
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1 Year	40.00	21.00	11.00
2 Years	72.00	40.00	20.00
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[Teachers and Students in India Rs. 30.00 per year]

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SCIENCE FOR THE MASSES

P. Adinarayana Reddy*

A developing country like India where the vast majority of people living in rural areas mostly depend on agriculture for their livelihood are illiterate and poor. This majority is not benefited by the fruits of the advanced science and technology. Only fraction of the people living in the urban sector are enjoying the privileges and comforts of the science.

All democratic governments are committed to the welfare of the society and are responsible for the socio-economic development of its people by increasing their productivity and purchasing power. This can be achieved only by the wider application of the science and technology. At present the knowledge of science and technology is with the educated, wealthy and urban sector only. For all round development of the country the knowledge of science and technology and its application must be disseminated to the majority irrespective to their social, economic, political and educational status.

There is a greater demand for the incorporation of science into every part of the society by drawing all the resources available in the community. Science for the masses should be viewed as the contribution to the development, dissemination and application of scientific and technical know-how in the development of the individual and country as a whole.

There are millions of illiterate people who cultivate their fields with the age-old traditional skills, equipment and work in factories in the same routine manner in unhygienic conditions and who believe in the power of charms and talismen rather than in modern diagnostic and therapeutic methods when afflicted by disease. They are governed by superstitious beliefs in all aspects of life including health, habits, food and sex. They are poor people with their thoughts centred round their means of livelihood.

To uplift these people to a higher strata of the society and to bridge the gap between affluent and poor, needs a minimum of basic, relevant and applicable scientific and technical information together with a positive attitude towards science and scientific thinking. Once the people become aware of the fact that much information they now gain under other guises stems from science then this would be helpful in achieving

ing a more scientific climate or attitude in the community.

Science for the masses comprises all those aspects of knowledge that come from the work of the scientists and includes the immense variety of applications of this knowledge that have or could be made. For example, health, nutrition, sanitation, population, medicine, agriculture, environment, resource development and utilization of all familiar areas in which knowledge and its application has improved the quality of the lives of citizens.

To be specific, science for the masses should comprise the following components:

- * It should increase the productivity and purchasing power of the individual and overall development of the country;
- * It should be based on the needs, interests, problems of daily life and should be applicable in their work, home and leisure;
- * It should be useful for their immediate benefit;
- * It should enable the people to acquire new but useful employable skill in their occupation;
- * It must consider all cultural, social traditions and seek to complement these and should not clash with them;
- * It should make the masses recognize and appreciate the importance of science and technology in individual as well as national development;
- * It should enable the masses to utilise the locally available resources in their environment and to live more harmoniously with nature and society;
- * It should propagate the science and technology among the masses;
- * It should disseminate the knowledge of science and technology for application that evolves as a result of current scientific research;
- * It should create a scientifically educated citizenry in the country;
- * It should promote in the public mind an interest for science and technology and develop scientific awareness in the masses;
- * It should train the young people in instrument making and carrying out observation in their respective occupations; and
- * It should bridge the gap between the general public and professional experts in respect of scientific knowledge and its application.

*Project Officer, Department of Adult, Continuing Education and Extension, Sri Venkateswara University, Tirupati.

The rapid development of science is a feature of our times. Science has become a very powerful contributor to economic development through its application and it has contributed much to social progress in terms of eradication of poverty, the provision of proper conditions for decent living, working and the achievement of social justice. Science is of value for every one in all communities and societies at all the ages. It implies providing every one with scientific competence, knowledge and skills appropriate to his immediate needs.

The Sixth Five Year Plan (1980-85) document recognised the need of science to the masses and emphasized, "The task of creating a scientific temper is a vital necessity for the growth of science and its utilization in the development process. There is need to create a scientific climate and involve the people in discussions on various issues of science and technology which affect their life. There has to be dissemination of knowledge about natural phenomena and technological innovations through popular science journals and other media. There is also need for promoting public debate on major issues for eradication of the irrational attitudes which tend to hold back the nation from the path of progress."

The problem of creating a scientific climate, formidable though it may be, can be solved by sincere efforts by governmental agencies, educational institutions and voluntary agencies.

There are a good number of voluntary societies connected with popularizing science and creating a scientific literacy among the masses and are engaged in various activities such as organizing popular science lectures, demonstrations, running hobby centres, science museums, publishing popular science books and journals, displaying wall papers, organising exhibitions, holding science talent search tests, running rocket clubs, holding evening classes for neo-literates and staging dramas based on science themes in villages etc. Some examples are Kerala Shashtra Sahitya Parishat (KSSP) of Calicut in Kerala, the Assam Science Society at Gauhati, Ahmedabad based Vikram Sarabhai Community Science Centre and the Kisore Bharati Group of Hoshangabad in Madhya Pradesh.

For inculcating the modern ideas and egalitarian spirit in the minds of the masses and for carrying the gains of modern scientific and technical inventions to them, we the educated people have to strive hard to bring an apparent change in their outdated approach and create an urge among them for modern and rational values and new ways of life by utilising the infrastructure and resources that are available in the formal and non-formal sectors of education. The education-

nal institutions and the trained personnel in various areas of science have to be accessible to all and they may have to spare certain period of their time to this purpose from their routine duties. The students starting from high school to the higher education should be involved either voluntarily or compulsorily as part of their curricular or extra curricular activities, for the benefit of the community, by conducting scientific exhibitions, museums, science clubs, organisation of film shows, training extension agents, demonstrations on health, hygiene, sanitation, providing a science library facility, conducting simple meetings and lectures on interesting topics to the masses.

Science and technology are moving so fast that it is quite impossible for the formal education system to keep abreast of the latest development. In addition there has been a knowledge explosion in science and it is becoming increasingly difficult to collect the various bits of knowledge together to obtain a whole picture of science and its application and of the impact of science on society. Our government has therefore been organising a number of non-formal education programmes. One of them, the adult education programme is a major and mass oriented programme with literacy, functionality and awareness as its components.

The infrastructure that is available in these programmes can be utilised profitably for the benefit of the masses to equip them in updating their knowledge in their occupation and simple science to maintain their families in a decent healthy environment. In order to perform the above functions and to popularize the science for the masses a special training for the above field functionaries may be organised to upgrade their competencies in effective dissemination of scientific knowledge.

Mass media agencies like radio, T.V., films and newspapers may be effectively involved in the popularization of science as these are the agencies accessible to majority of our people. The radio and T.V. programmes may be reoriented and more time may be allocated for the promotion of science for the common people. Films are the more popular and attractive media and may be exploited for the promotion and dissemination of scientific and technical knowhow.

The newspapers with a limited readership (i.e. only literates) can also play a predominant role in popularizing science for all. Scientific information based on the needs, problems and interests of the people can be disseminated and the newspapers can also play an important role in coordinating the efforts of the different agencies in this direction.

Government at the apex level can plan, guide, coordinate, monitor and evaluate the activities of the

science programmes for the masses. It should promote, organise and undertake the following activities:

- * Encourage the voluntary organisations to take up the science popularisation activities like science clubs and societies and co-ordinating their activities and work with a concerted effort to infuse scientific temper in the masses;
- * Popular science magazines and journals should be brought out in various languages so that they can reach the various strata of the society;
- * Conferences, workshops may be organised to train the writers and to encourage them to write simple materials in different languages on day-to-day science;
- * The science clubs and societies should be encouraged to hold frequent exhibitions in various localities and set up hobby centres and museums;
- * Science clubs and societies should be provided funds to organise extension lectures, demonstrations in the villages and the local resource persons like developmental officers, field publicity officers,

doctors, engineers should be associated with these activities;

- * Radio and television should be made to devote more time to broadcast and telecast on science and technology themes respectively;
- * Newspapers may be encouraged to publish science features regularly by offering incentives to them;
- * Popular science films, filmstrips and slides should be produced with the help of experts in science, technology and communication for wide distribution;
- * INSAT 1-B may be exploited for propagation of science to the masses through different media channels; and
- * Community television viewing should be encouraged in the remote areas by installing community television sets.

The Government can create a model agency at the apex level in order to coordinate all the above activities and to provide funds to different agencies to undertake science for the masses effectively. □

ANNAMALAI UNIVERSITY

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DEPARTMENT OF BUSINESS ADMINISTRATION

APPLICATIONS are invited in the prescribed form for filling up the post of Professor of Business Administration. Applications can be had from the undersigned on payment of Rs. 10/- (not refundable) by cash/by money order/by postal order. Applications (with 5 additional copies) should reach the undersigned on or before **15-5-1986**.

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Such of those who are already in service should route their applications through the proper channel.

R. Rajamanickam
REGISTRAR

Prof. Chittibabu Addresses Convocation of Annamalai University

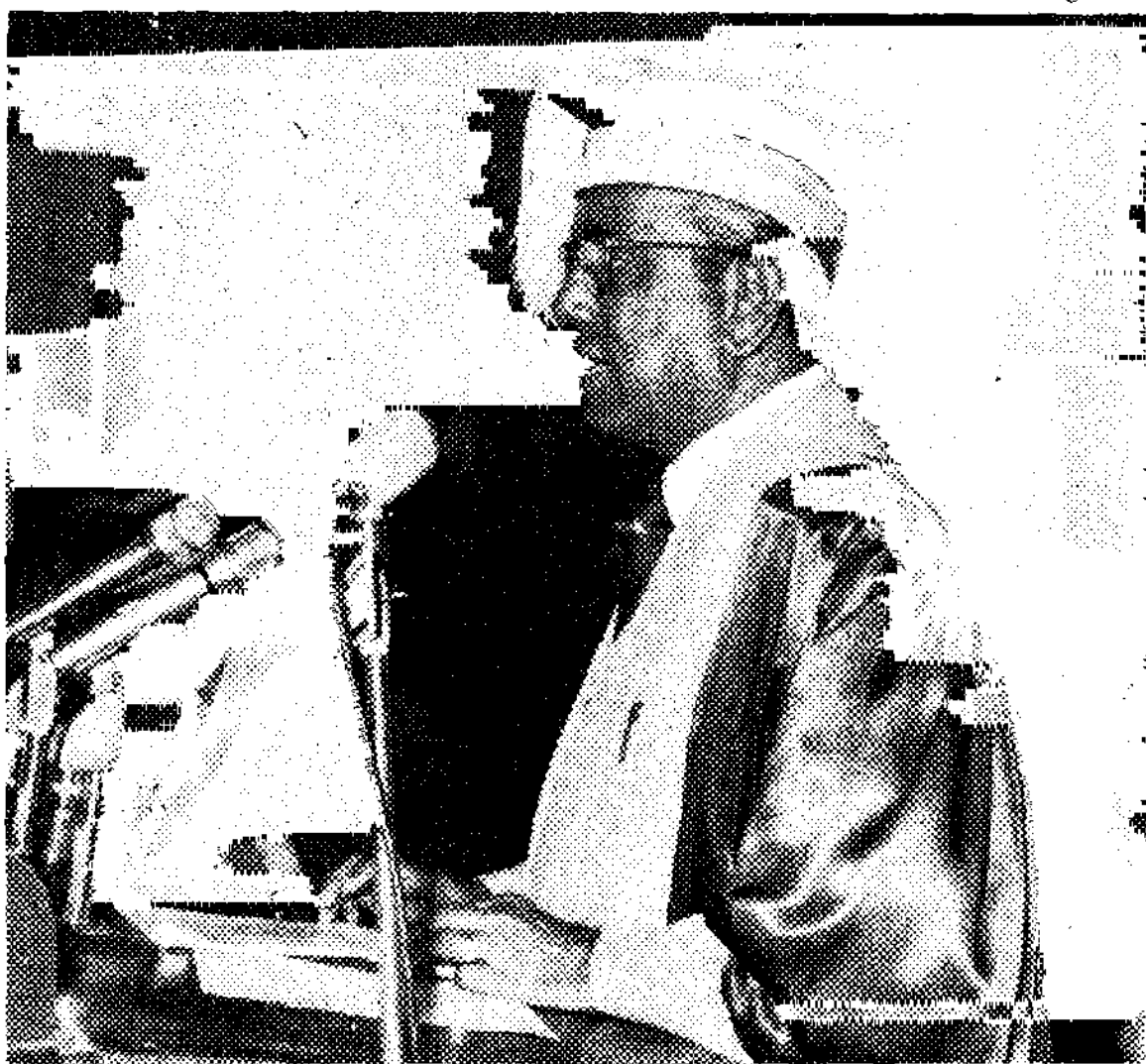
Excerpts from the Convocation Address delivered by Prof. S. V. Chittibabu, VC, Annamalai University and President, AIU, at the Annamalai University, Annamalainagar, on March 31, 1986.

"...Time was when the University was looked upon as a repository of accumulated knowledge and a training ground for the acquisition of certain kinds of skills. But now an institution of higher learning is expected to provide the ground work for personality development in an autonomous ambience. Laying adequate emphasis on the liberation and enlargement of the mind and heart, it must help people to acquire a vision to enrich the quality of life. But unfortunately many of our Indian Universities, including those started in recent years, have failed to liquidate the vested interests which have strong fortifications of their own and which for obvious reasons promote dependence, traditionalism, obscurantism and passivity. Only determined assaults can batter the barriers and transmute the universities into effective change-agents. As has been rightly said, while education for change is only marginally possible, all education is change-producing and change-inducing. We know how the United States experimented with the scheme of Land Grant Colleges, with a view to making the University a conscious agent for change. In the initial stages, this effort was poohpoohed. A senator derided "Who wants fancy farmers?" while parents of students contemptuously referred to these colleges as "cow colleges". But subsequent developments silenced carping critics and it is now acknowledged how Land Grant Colleges have promoted change both directly and indirectly through the instrumentalities of teaching, research and extension

services. It is therefore understandable why the University Grants Commission has underscored the function of the University as comprising : (a) teaching; (b) research; and (c) extension.

Based on the considered views and observations of experts, academics and consumers of education, the document recently put out by the Central Government under the caption "Challenge of Education—a policy perspective" for providing the forum for a nation-wide debate has, *inter alia*, examined the strengths and weaknesses of our higher education today. While highlighting the importance of educa-

tion as a solid investment in human resources development and as a builder of national integration, solidarity, productivity, secularism, socialism and scientific temper, it avers higher education as the corner stone of self-reliance. Ever since the days of our attainment of Independence, elementary education has been given a place of priority in our schemes of economic and cultural development. The eradication of adult illiteracy has also been accepted as a programme to be implemented for strengthening our democratic fabric. Vocationalisation of education at the higher secondary level is also considered an imperative for providing manpower to sustain the infrastructure of technology and services in a modern society. Higher education has gained special importance because it supplies ideas and men, raises the intellectual tone of society, cultures the public mind and nourishes all other facets and levels of education. It can hardly be gainsaid that the



Prof. S.V. Chittibabu delivering the convocation address.

quality and pace of development of any nation depends on the ideological milieu that it is able to generate, the perceptions of history and the cultural traditions and values that a nation requires and the confidence and faith it has in human potential to surmount problems of material and spiritual life. And it is precisely here that the intelligentsia and higher education have a unique role to play in furnishing the variety of increasingly sophisticated and ever-changing manpower that agriculture, industry, administration and services need. The self-reliant and endogenous trait of an economy can be ensured only when competent people are available to forecast, plan and operationalise research and development schemes so essential to keep ourselves abreast of developments in the world. Our R and D institutions and universities are therefore the backbone of our economy and a reliable catalyst for the fulfilment of our national aspirations and goals.

Since the various levels of education are interdependent, it is not that easy to assert that one level is more important than the other. Caution bids us to reaffirm that there ought to be a proportionate and harmonious development of the various levels of education so as to optimise education's role in individual and social transformation. Taking the cue from the experience of developed countries, higher education in India should be adequately funded so as to make it world-competitive and of the highest quality and at the same time relevant to the individual and society. In this context, it is desirable that the springing up of new universities and colleges is brought under judicious control. They should be set up only when the need for them is established through feasibility studies. Socially and economically backward areas should of course be given special consi-

deration. The University Grants Commission must ensure that its funds are not wasted but functionally and optimally used by universities and colleges, by implementing the educational policies laid down by the former. I strongly recommend that while the University Grants Commission streamlines, strengthens and expands its monitoring system for periodical appraisal of university performance, an Inter-University Coordinating Council or a State Council of Higher Education be immediately set up in every state for the specific purpose of maintaining quality control in the administration and management of higher education, which at present is bogged down by bureaucratic red-tapism, over centralisation and professional incompetence. The proposed Council can play an effective role in guiding the universities in their proper functioning, academically and administratively. It should be vested with powers to oversee and monitor the implementation of all educational programmes, as per the guidelines laid down by the University Grants Commission and make appropriate recommendations to the State Government as well as the University Grants Commission on the question of sanction of grants not only for maintenance of administration but also for developmental schemes geared to promotion of the academic quality of teaching and research. It can also extend its services to the Universities in matters of scientific and professionalised management. It can undertake detailed exercises in manpower-planning, coordinated with educational planning. It can induce the State Government to refrain from permitting the unrestricted and unplanned expansion of higher education. The problem of non-viable institutions with low enrolments, poor facilities, and offering the usual traditional courses,

would have to be squarely tackled with determination, to make better use of available resources for accelerated educational development. The 'New Education Policy' document has called for critical views on the subject of delinking of jobs from degrees. The Association of Indian Universities has not expressed itself in favour of this delinking. Instead, it has suggested that the structure of courses be so revamped that the nexus between degrees and jobs is strengthened and the fresh graduates are so trained as to suit the employment market. The proposed State Council would do well to make an indepth study of this question and come up with positive recommendations as to the lines on which the educational system may be made more meaningfully relevant to societal needs and the current aspirations of the people. A proper economic strategy needs to be urgently evolved and the mismatch between education and manpower has to be avoided. One suggestion made is to go in for an all India scheme of examination to evaluate academic and professional attainments at various levels. Such a course of action, it is believed, will put an end to the craze for degrees at any price. It will save university degrees from getting discredited as irrelevant, worthless and commercial commodities.

For maintaining high standards and for giving the needed thrust to programmes of development, the post-graduate system calls for a transformation of its character through the introduction of a modern scientific outlook and other essential measures to suit our national needs, and an extension of its coverage so that the education of the people becomes not a peripheral pursuit but a central objective. Since about 50 percent of post-graduate students are in colleges, it is necessary that the University Grants Commission should review the

position in terms of the norms of post-graduate education. Those colleges which have the potential to fulfil the criteria of post-graduate education should be adequately aided and encouraged and others should be made to discontinue post-graduate instruction, if standards are to be maintained. University Departments should be so strengthened as to function as viable units of teaching and research. While inter-disciplinary courses should be introduced at the under-graduate level also, special efforts should be made in this regard at the post-graduate and research level. Individuals, groups and departments in universities and colleges should be given every support in their pursuit of high quality research. Advanced research calls for the development of indigenous instrumentation capability and culture. Efforts in this regard should be encouraged through the setting up of University Instrumentation Service and Regional Instrumentation Centres. While universities will continue to be involved in fundamental research, it is essential that they should collaborate with national laboratories and industries in application oriented research. Both fundamental and applied research demand the highest intellectual qualities.

In this context, it is viewed with concern that research should be very largely located outside the university system and mainly in 'Councils' and their laboratories spread on a major scale in industry, medicine and agriculture. The cause for this concern arises from the fact that whereas three fourths of the research funding of nearly Rs. 1000 crores a year is provided by the Government of India for the national laboratories, only about 2.5 to 3 per cent of the research allocation goes to the universities. It is high time that the question of funding of university research was re-examined imaginatively, with a view to

apportioning a bigger slice of the cake to the universities engaged in both fundamental and applied research of high quality. Otherwise it is justly feared that the calibre of teachers and students working within the university system to produce and reproduce both knowledge and scholarly work is bound to deteriorate. It is however comforting to note that the UGC has presently taken a number of policy decisions to make more money available to expand the base of research in selected universities in order to enable them to step up standards of post-graduate education and attract projects from many national agencies in relation to areas of national importance. The Commission is also endeavouring to forge strong links with other institutions and laboratories to have more national centres of excellence in research, in close collaboration with universities.

As regards the controversy whether research and teaching are to be treated as two independent compartments of academic activity in universities and colleges or whether their complementarity should be recognised and appreciated, the Kothari Commission has hit the nail on the head by observing thus: "Engagement in research work is a major pre-condition for creative teaching and stimulation of creativity". Those who are inclined to believe that a teacher can gain mastery over his subject without his being a researcher himself seem to consider that a university teacher has the needed intellectual equipment to critically examine, analyse, synthesise and evaluate the subject matter available in the field of his specialisation and absorb the new ideas which may be the outcome of research into his repertoire and thereby enrich his store of knowledge. According to their thesis, this can be done if he remains academically active by updating his scholarship with the help of professio-

nal journals, books and related forums. As such he need not be a researcher himself. Those who advocate that undertaking research *per se* refines the teaching competence of a teacher put forth the contention that research gives the teacher a more personalised experience of the romance of knowledge generation in his discipline and provides him newer insights into the structure of knowledge. Even if this influence be intangible and imperceptible, it is considered extremely valuable and tellingly operative in effective teaching. The very gamut of any research activity demands that the teacher remains a teacher cum discoverer and consequently may be mentally better attuned to view knowledge as a growing entity. The fact of the matter is, universities are unique institutions where research, scholarship and teaching are integrated into a matrix of academic activities which are interdependent. Their boundaries are diffused. Teaching without scholarship becomes dull and repetitious; research without teaching becomes irrelevant; practice without research becomes voodoo; and scholarship without instruction become sterile. Francis Bacon put it this way some centuries ago:

"From experience of every kind first endeavour to discover true causes and axioms; and seek for experiments of Light, not for experiments of Fruit. For axioms, rightly discovered and established, supply practice with its instruments not one by one, but in clusters." These words are relevant even today. It should be the avowed responsibility of university academics to stimulate independent and critical thinking in their students and introduce them to an experience of generating knowledge as well as its methodology. If all this is to be attained through teaching, it is essential that the students have

opportunities of being taught by those who involve themselves in research too. This contact takes the students nearer to research and prepares them for the thrilling task of discovering new knowledge. Even so, the researcher in the teacher may stand out as a model for the students who are researchers in the making. It would be clear, then, that the complementarity of teaching and research inheres in both the processes, when they are pursued continuously for improvement. The nature of teaching process is such that for improving one or the other aspect of it, the teacher has to go the way of research and developmental activities. On the other hand, whenever a conscientious teacher sincerely undertakes research, the outcome is bound to impinge upon the different aspects of his teaching functions in terms of clarity of knowledge, designing of newer strategies, and may be, more intimate contact and interactions with the young minds he is to teach. What seems to be the need to put these two functions in their proper perspective is not only to treat them at par on the academic plane, but also to establish the parity by formulating evaluation techniques, suitable for judging the quality of both, and arriving at a composite measure of the teacher's competence regarding research and teaching and other functions. And this parity should further be enforced by giving due consideration at the time of promotions and appointments. Then only the controversy which seems to stem from considerations other than academic can be given the quietus, and complementarity countenanced.

A disturbing phenomenon, of late noted, particularly in respect of some Universities outside Tamil Nadu is that when the Government interferes with a university, this action is seldom in connection with matters of high policy such as, for instance, the kind of plan that

it should opt for, what post-graduate or research departments it should or should not establish, what provision it should make to generate the man-power necessary for the growth of local industries or how it could meet the menace of unemployment. Consultations on such matters would not only be understandable but even be healthy and welcome in the larger interests of the nation, and no university would in its wisdom resist such intervention. But the trend of Government intervention is seen to be in the direction of securing a kind of physical control of the University, the appointment of its Vice-Chancellor, the functioning of the Senate and the Syndicate, the affiliation of colleges etc. This is tantamount to seizing the basic authority of the University as an autonomous body. It may be added, in passing, that should anything go wrong as a sequel to such interference, the blame is squarely laid at the door of the university! Apart from the fundamental canon that free and representative institutions alone can contribute to the making of a democracy, the university, if it is to be of any service to society and to be objective in its pursuit of truth, must grow in a climate of freedom, uncontaminated by the virus of prejudices and dogmas. Addressing the Sixth Congress of the Universities of the British Commonwealth at Oxford in 1948, Mr. Herbert Morrison said, "In this country the government does not control the Universities and I am very glad it does not. I like the independence of the Universities. Universities where there may be the most amazing teachers of the most amazing doctrines, from some of which I strongly dissent, but they survive... What I like about the University life of the country is the intellectual freedom of it, the lack of the official regimental government control and the atmosphere—Let us find out the truth;

even if it is inconvenient, let us find it out."

There is indeed another side to this arbitrary encroachment on university autonomy by the authorities. It has to be admitted that government on certain occasions have had ostensible reasons to interfere because some universities have so glaringly flouted all canons of administrative integrity and abused their powers in the name of autonomy. If in a university the men at the top fail to adhere to norms of decency and uprightness, the State's interference would appear to be justified. Of course, the present syndrom of campus-unrest is symptomatic of the fact that some of our universities have still not settled down to a proper standard of administrative efficiency and fair-play. But this unfortunate situation does not emerge in a vacuum. On the contrary, it is caught in a vicious circle. Like any other corporate body, the University has and will always have its share of manipulators and power-seekers. Their influence, however, becomes far more ruinous, when it is generated or buttressed by an external agency. There certainly are drawbacks in the functioning of the universities. But to remedy these, there has to be an in-built machinery to deal with them and this has to be in the university itself. The memorable words of Dr. Zakir Hussain in this context will bear repetition. "The wisdom of our generation is on test in our country for devising methods of liberal financial assistance by the State without any desire to influence or control the working of the Universities... The liberal assistance of the University Grants Committee of Great Britain to the British Universities without anything like even the semblance of interference or control, presents an admirable example which I am sure, will be emulated in India. This freedom like all other freedom

cannot be absolute. But the only limitations and restraints on it should be those of decency and decorum and those of social responsibility. I am sure the Universities will do everything scrupulously to guard their autonomy and will leave nothing undone amply to deserve it".

To-day's problems and challenges can best be termed as, global, although their force is experienced in varying intensities contextually. India shares these conditions with other countries and also is plagued by its own local problems. Even after thirty seven years of Independence, it is shocking and bewildering that the Indian masses continue to be in the vicious and dehumanising grip of abject poverty and its syndromes. Scientific and technological advances have been no doubt impressive, but their mindless application and lack of well-conceived social orientation have opened a Pandora's Box. Atmosphere pollution, ecological imbalances and depletion of non-renewable resources have added to the penury and misery of the people. Unplanned migration to towns and cities in search of gainful employment has given rise to urban slums where the rural youth lead an aimless and precarious life. Progress in science and technology has, paradoxically speaking, resulted in the regress of the masses accelerating their alienation and impoverishment. While the youth have been dragooned into a welter of vice and violence, there has been a steady degradation of political, social and moral values. The most vehement indictment of the average politician is contained in the words of Sri Aurobindo, who exploded thus: "...he does not represent the soul of a people or its aspirations. What he does usually represent is all the average pettiness, selfishness, egoism, self-deception that is about him, and these he represents well enough, as well as a great deal of mental

incompetence and moral conventionality, timidity and pretence. Great issues often come to him for decision, but he does not deal with them greatly". The sickness and delusion of modern political life is manifest in every country of the world and it is only the hypnotised acquiescence of all, even of the intellectual classes, in the well-orchestrated fraud that shrouds and prolongs the malady. Thus in India, there is all round disenchantment with our Five Year Plans because of persisting disparities among different segments of population, monopoly of economic power by big land owners and large business houses, unemployment and underemployment of a vast majority of the people. India's gigantic formal educational system, with its more than 4 million teachers, 114 million children and youth and an annual expenditure of over Rs. 35,000 million, has benefitted only about 20 to 30 per cent of the nation's children. The poverty stricken and exploited masses responsible for the nation's production have remained outside its periphery. The age we are passing through was never so complex and perplexing at any previous stage of history. And our rationalistic age is facing its most critical hour with several alternative futures open for our choice and man himself appears set for an evolutionary mutation. What is called for is a drastic change in the very outlook of man on his life, his values and his environment. The most pressing need, in other words, is a global ethic, an ethic that would strongly enkindle his awareness of the role he has to play as a member of the world community, a style of life marked by the values of harmony, thrift, tolerance and conservation of resources rather than aggressiveness, competitiveness and acquisitiveness. It is towards the development of such a global ethic that mankind looks up to education. Education, under

the circumstances described, cannot any longer mean just a process of transmission of conventional knowledge and forms of behaviour in formal institutions through stereotyped and archaic ways. It should mean a creative and regenerative influence that stirs a new spirit of what is called, "synthetic consciousness" leading to highest possible excellence and utmost integration of personality. In the words of Dr. Radhakrishnan, "we are slowly realising that people with different opinions and convictions are necessary to each other to work out the larger synthesis which alone can give the spiritual basis to a world brought together into intimate oneness by mechanical ingenuity." The immortal sage-poet, Thiruvalluvar, in two of his celebrated couplets of epigrammatic wisdom reflects thus on the true meaning of learning and wisdom:

Since all the learned deem whatever land or town as their own
Why won't one go on learning throughout one's life time.

True wisdom lies in restraining the mind from getting distracted by things that are evil and channelising it towards things that are good.

It is against this background that the role of the teacher today needs to be conceptualised.

The existence of a wide array of teacher role descriptions (and prescriptions) points to the variety of contexts with reference to which talking about the teacher's role would be meaningful. For example, if we take the concrete context of class room learning, the teacher assumes such roles as lecturer, demonstrator, class room manager, custodian, evaluator, guide, counsellor, etc. But if the teacher today is referred to as a "learning facilitator" and "community mobiliser",

it is because of our increasing realisation of the implications of the symbiotic relationship of education and society. In respect of educational system of any society, the educational personnel system may be regarded as a sub-system and the larger society as the *Supra* system. Time and again, we have been told that the teacher is the critical factor in any educational set-up. India, according to forecasts, will be faced with the problem of population explosion and the present system of education will be cost ineffective and also outdated in the fast developing technology-oriented society. Education will be largely through mass-media and self-learning. Emphasis henceforth will be on 'learning how to learn' and the distinctions between formal, informal, child and adult education will be blurred. Learning will emerge as a cooperative team-work between the teacher and the taught and, education will get more and more involved in community, political and social life. There will be variety and diversity in educational approaches, lifelong education, linkages with work and productivity, education for rural development and closer community relations. Our teachers have therefore to re-equip themselves with new tools of their trade in order to utilise interactive methods of instruction such as projects, seminars, simulatory exercises, problem-solving sessions, tutorials, term-papers, field-work etc. With a rich outfit of films, video-cassettes and video-discs, sophisticated computers, they will be required to use their creative talents in the interests of distance education which would greatly enhance the reach as well as the scope of higher education. They will have to take the initiative in establishing educational programmes with the involvement, particularly of Government agencies and departments, public sector industries and voluntary organisations.

In this way, they will be improving the employability of the students. Linkages with socio-economic activities open up a mine of ideas, some of which may lead to improvement in production and performance and others to growth of knowledge which has a long term fall-out in the form of new applications. A systems-approach will overtake the ivory-tower approach.

From the aforementioned observations, it will be clear that the teacher plays a crucial role in the building of student-character and temperament, or of high quality research connected with developmental needs and related problems of management of education. He is an instrument of educational change as much as education is an instrument of social change and national development. If the teacher is not motivated or inspired but is discontented and frustrated, if he is not pepped up with adequate supply of the basic necessities, then we cannot expect from him a genuinely professional role which is appropriate to current needs. I therefore make bold to appeal to the Government to appreciate and accept the considered recommendations made by the National Commission on Teachers in Higher Education and

provide the teacher with the status that he deserves, together with encouragement and resources for his task. The 'New Education Policy' document, we are happy to note, does stress the need to suitably determine the emoluments and other facilities, particularly housing, of college and university teachers with a view to raising the image of the teaching profession as well as attracting young people with talent and imagination into it. And this is indeed an indication of the Central Government's sincere concern for the well-being of teachers. And I would therefore, like to make a fervent plea to every teacher to open his mind and heart to the surging tide of new possibilities and fulfil his commitments with courage of conviction and faith in his being what Humbert Wolfe has so aptly described as a visionary architect, thus:

"I also build but not with steel
or stone,
But with the shadowy bricks of
innocence,
And mortar that the heart has
made her own,
And what I build has neither roof
nor fence that can deflect,
With limits or an end, the vision-
ary architect." □

ICAR Summer Institutes

The Indian Council of Agricultural Research (ICAR) proposes to organise 19 Summer Institutes at the different University Centres in the field of agricultural sciences during the ensuing summer vacation for the benefit of teachers, research workers and extension workers particularly the subject matter specialists. The objective of this inservice training course is to communicate the latest technological advances in the subject and provide the necessary orientation to the teachers and research workers of agriculture/agricultural engineering/animal science/fisheries so that they are able to relate the teaching of their subject to the problems of their respective disciplines.

New Policy of Technical Education

A one-day Seminar on 'New Policy of Technical Education' was recently organised at the University of Roorkee. The following recommendations emerged out of the deliberations of the Seminar.

I. Apex Body for Higher Technical Education

The present inequitable situation of direct support by the Ministry of Human Resource Development on a much better scale to some Institutions in comparison to the rest, with no objective assessment of achievements and needs should be rectified. An apex national body should be constituted to look after all aspects of higher technical education including technical manpower planning and formulation of national technical education policy. This body may be called the **Technical Education Commission (TEC)** or given some other suitable name. The major functions of this body should be as follows:

- (i) Laying down of minimum statutory standards regarding curriculum, infrastructural facilities and faculty.
- (ii) Monitoring performance of all Institutions offering higher technical education.
- (iii) Granting approval for starting of new Institutions in accordance with projected manpower requirements. (No new Institution be permitted to be established in the country without such approval).
- (iv) Recognition and derecognition of courses, or institutions.
- (v) Total financing of postgraduate and doctoral technical education programmes in the country for all institutions whether administered by the State or the Centre.

(vi) Identification and total financing of technical institutions of proven excellence as judged by student enrolment at postgraduate and doctoral level and variety of programmes offered, Quantum of sponsored research and consultancy, Quality and achievements of faculty, Existing infrastructural facilities, and Performance of students. Such identified institutions should be taken over and managed in the Central Sector as national institutions.

(vii) Conducting a national qualifying test for admission to engineering degree courses at undergraduate level. (This test should be of the objective type and conducted in various regional languages).

II. Management of Technical Institutions

Institutions should have greater autonomy and flexibility in financial and administrative management. In the teaching residential universities, the Syndicate or the Executive Council should be constituted in accordance with the recommendations of Gajendragadkar Commission. The major handicap of the requirement to refer individual decisions for Government approval has to be removed. For this purpose a small body including Government nominees should be constituted having terminal powers in financial and administrative matters so that no individual matters have to be referred to the Government once the budget is approved.

There is scope for increase in tuition fees as they have been held static over more than 25 years. However, it is realised that even a 100% increase in fees will make only a small reduction in the need for public financing. Raising of fees to the level of self-sufficiency will be highly inequitable and impractical. The Institutions will have to continue to depend on Government financing, supported by cess on Industry as recommended later.

III. Faculty Development

(i) The pay scales and other benefits for teaching faculty should be at least equal to the best available in the profession;

(ii) The pay scales of Lecturer and Reader/Assistant Professor, should be merged into a single time scale with appropriate efficiency bars with the designation of Assistant Professor. A high achiever should be entitled to apply for assessment to cross an efficiency bar before he reaches it in the time scale;

(iii) Professor's designation and scale should be given only to persons who fulfil specified high standards of professional attainment as judged by open selection. The institution should have flexibility in deciding the strength of Professors' cadre, within the overall faculty strength;

(iv) Provision of lateral movement of Faculty between Institutions;

(v) Mandatory provision for field training and interaction with industry; and

(vi) Creation of an All India Service of Technical Education is not considered desirable.

IV. Linkage with Industry

(i) Exchange between Faculty and Industry should be encouraged through statutory provisions;

(ii) A cess on Industry should be imposed and made available for development of R & D facilities in the Institutions. Income from such

a cess should not be credited to Government revenue but accrue directly to the Apex body recommended earlier;

(iii) Industry should give stipend to students undergoing vocational training; and

(iv) Industry should participate in curriculum development.

V. Curriculum Development

(i) Provision should be made for hands on computer training at the undergraduate level for all engineering students. Syllabi and instructional methods should be constantly reviewed and updated;

(ii) Internal and continuous assessment of students should be encouraged. However, the Institution should have an internal monitoring system of its evaluation process; and

(iii) Students should be encouraged to use their own hands in laboratories and workshops. They should carry their own field equipment. Paid job opportunities should be provided within the Institution as a means of financial support as well as to instil dignity of labour. Extra curricular activities should be given maximum encouragement and may be counted for credit.

Workshop on eradication of illiteracy

Prof. Ram Lal Parikh, Vice-Chancellor, Gujarat Vidyapith in an address to the participants of the Second Workshop on Eradication of Illiteracy through Mass Movement of University/College Students, held in Delhi recently, described eradication of illiteracy, in the shortest possible time, a task of supreme importance. He said much depended on how the Adult/Continuing Education Departments of Universities inspired students to undertake this challenging task in a spirit of service and voluntary moral obligation. The

Prime Minister of India had very aptly prescribed 'Eradication of illiteracy' as one of the five 'Missions' of our national life. We must all strive to fulfil this mission in shortest possible time. He noted that this expression of the Government's determination to give such a high priority to this task was very heartening. He exhorted all those belonging to the Adult Education Depart-

ments of Universities not to depend on Government or UGC assistance alone but themselves raise voluntary resources, human as well as material, which should be identified from grass-root communities. Prof. Parikh suggested the following programme of action:

(1) A geographically contiguous area must be adopted before 1st May where the first inaugural function

Sports News

Inter-University Tournaments 1986-87 Venues

The Sports Committee of the Association of Indian Universities at its meeting held on April 4, 1986 at Coimbatore decided the following venues for the various Inter-University Tournaments for the year 1986-87.

Tournaments on All India Basis

Sr. No.	Game	Venue
1.	Athletics (M & W)	Allahabad
2.	Cross Country Races (M & W)	HAU, Hissar
3.	Boxing	Orissa Ag. & Tech.
4.	Cricket (W)	Madras
5.	Cycling (M & W)	Punjabi
6.	Gymnastics (M & W) & Malkhamb	Delhi
7.	Rowing	Calcutta
8.	Squash Rackets	BHU
9.	Swimming (M & W), Diving & Waterpolo	Poona
10.	Tennis (W)	Annamalai
11.	Wt. Lifting & Best Physique	Mysore
12.	Wrestling	Marathwada
13.	Ball Badminton (M)	Gandhiji
14.	Ball Badminton (W)	Mangalore

Tournaments on Two Zone Basis

1.	Basketball (W)	NZ	IIT Kanpur
		SZ & IZ	Madras
2.	Chess	NZ	Vacant
		SZ & IZ	Vacant
3.	Handball (M & W)	NZ & IZ	Delhi
		SZ	Saurashtra
4.	Hockey (W)	NZ & IZ	Ravishankar
		SZ	Banasthali
5.	Kabaddi (W)	NZ & IZ	Vacant
		SZ	Poona

on 1st May should be held.

(2) An immediate bench mark survey should be conducted to determine the status of every household for their literacy and post-literacy needs.

(3) Report of the bench mark survey along with perspective plan should be ready before the end of May, and should be published for wider dissemination in local language.

(4) The students and volunteers should be assigned to households rather than individuals for literacy work.

(5) The literacy kits should be given in the first week of June. 15th June to 15th July should be devoted to adopted contiguous house-holds. Every day 4 hours may be devoted to achieve 100 hours in one month.

(6) After completing 100 hours in this manner, the progress should be reviewed by calling all the students and volunteers at one place so that whatever pedagogic and communicational problems that have arisen are sorted out.

(7) From 1st August to 15th August should be another fortnight for intensive work. Evaluation should take place on 15th August and success of the work should be celebrated on the evening of 15th August in the presence of all members of the community concerned.

Harnessing technology to alleviate human suffering

The Sree Chitra Tirunal Institute for Medical Sciences and Technology is an institution which specifically seeks to build bridges between medical science and technology. Located in Trivandrum, India, it was recognized by the Government of India as an Institute of National Importance in 1981 and accorded the status of a University. The primary objectives of the Institute are the development of biomedical engineering and technology, demonstration of high standards of patient care, and the organization of integrated training programs for medical and engineering scientists. Underlying all its programs is the effort to harness technology for the relief of human suffering and to develop a common core of scientific knowledge.

The Institute has a 200-bed hospital which offers a wide range of services including computerized tomography and open heart surgery. Besides providing up-to-date services for patients in Cardiology and Neurology, the hospital has initiated major studies on clinical problems of regional importance such as endomyocardial fibrosis and intracranial infections. The technological programs of the Institute are

6. Kho-Kho (M)

NZ Agra
SZ & IZ Nagpur

7. Kho-Kho (W)

NZ Vacant
SZ & IZ Mysore

8. Tennis (M)

NZ Vacant
SZ & IZ Bharathiar

9. Volleyball (W)

NZ & IZ GNDU
SZ Saurashtra

Tournaments on Four Zone Basis

1. Badminton (M & W)

NZ & IZ Vacant
EZ Ravishankar
SZ Madurai Kamaraj
WZ & IZ Vombay

2. Basketball (M)

NZ Bacant
EZ & IZ Berhampur
SZ Bharathiar
WZ Gujarat Agril.

3. Cricket (M)

NZ Jammu
EZ & IZ Calcutta
SZ Bangalore
WZ MS Baroda

4. Football

NZ Panjab
EZ & IZ Burdwan
SZ Kerala
WZ Amravati

5. Hockey (M)

NZ Lucknow
EZ & IZ Sambalpur
SZ Karnataka
WZ Bhopal

6. Kabaddi (M)

NZ Kurukshetra
EZ Vacant
SZ & IZ Annamalai
WZ Vmravati

7. Table Tennis (M & W)

NZ & IZ Aacant
EZ Bidhanchandra
SZ Krishi
WZ Madras

8. Volleyball (M)

NZ Meerut
EZ Ranchi
SZ Osmania
WZ & IZ Shivaji

located on a separate, sprawling campus in Trivandrum. Focussed on the development of biomaterials, bioimplants, and blood-compatible devices, the chain of laboratories includes those for polymer technology, materials characterization, toxicology, pathophysiology, artificial internal organs, extracorporeal devices, thrombosis, biosurface technology, mold design, and experimental surgery. These laboratories, which receive clinical inputs from the hospital have successfully developed a double blood bag, disposable bubble oxygenator and a cardiomy reservoir with filter, all of which have been transferred to commercial production in less than five years. Similarly, a tilting disc valve of integral cage design and a sapphire disc and a polyester woven vascular graft are expected to be used in clinical application shortly. A good deal of research is also under way in biosurface technology and platelet metabolism in thrombosis.

While the contributions of individuals and single laboratories will always remain important for the progress of biomedical engineering and technology, the major contributions from these disciplines for the health care system of a country are more likely to emerge from large multidisciplinary centres which can provide easy and constant access to various scientific disciplines. The success of the Chitra Experiment in conceptualizing technologies in the biomedical field and transferring them to production in less than five years would seem to validate the original objectives and approach of the Institute. Its continued growth will not only make significant contributions to the health care system of India but will also influence the state of biomedical technology abroad.

The Institute offers DM and M.Ch courses in cardiac and neuro

sciences as well as a postdoctoral certificate course in Anaesthesiology and Radiology. While conforming to the national pattern, these courses nevertheless bear a distinct technological imprint and are under continual review toward the objective of producing a new generation of scientists who would be equally at home in medical sciences and technology. The admissions to the postgraduate courses are made on the basis of an entrance examination which has attracted excellent response from across the nation.

Combating the communal virus

A 3-day U.G.C. seminar on "Co-existence in a Pluralistic Society: Problems and Prospects" was organized by the Department of Guru Nanak Studies of the Guru Nanak Dev University recently. There was a general consensus among the participants that whatever might be the causes of communalism, it was a part of the present social reality and unless collective endeavour was made to understand its root cause it will not be possible to analyse the present crisis in its true perspective.

According to Dr. (Miss) Madanjit Kaur, Director of the Seminar and the Head of the Department of Guru Nanak Studies, the idea of holding the seminar was directly related to the current Indian situation. The general aim was to examine the practical implications of various approaches to acquire better understanding of the minorities and emotional integration of the various communities. The seminar was a short term project on the Research Scheme of the Department on "Co-existence of Religious Communities in the Punjab: A Study in Historical and Social Perspective". The primary object

of this seminar was thus to understand the various problems of co-existence in a pluralistic society in India in order to carry out the detailed project.

Dr. Satish Chandra, a distinguished historian and the former Chairman of the University Grants Commission, in his inaugural address, emphasised the need of problem oriented research and said that the institutions of higher learning should not remain aloof when the country was facing crisis. He strongly advocated that Universities should come forward to face the contemporary social problems in order to provide guidelines in the direction of its solution. The present seminar was a landmark in this context, he added.

Dr. Attar Singh, Professor of Baba Farid Chair, Panjab University, Chandigarh and a reputed scholar of Punjabi literature delivered the keynote address. He said it was unfortunate that the Indian people had failed to develop a common identity even after 39 years of Independence. He pointed out to the peculiar nature of pluralistic society of India and that the tragedy was in India the dynamic concept of secularism had become static. It was adopted to contain communalism and not to counter it.

Various topics discussed at the seminar, included concept of secularism and the nature of Indian Pluralistic Society; prejudices and religious expression; religion and politics; religions and the problem of integration; interfaith dialogues, psycho-social and political issues of the problem, and the Punjab problem. Special emphasis was laid on the Sikh psyche and Sikh identity and the role of journalism in the present crisis. The constitutional aspect of the problem of minorities was also discussed in the papers presented on Gurdwara Act and the Article 25 of the Indian Constitution.

INSAT-1B Programme of UGC

Between 5th and 15th May, 1986 the following schedule of telecast on higher education through INSAT-1B under the auspices of the University Grants Commission will be observed. The programme is of one hour duration every day from 12.45 p.m. to 1.45 p.m. (Repeated from 4 p.m. to 5 p.m.) and will be available on the TV network throughout the country. For the viewers in Delhi and surrounding areas these programmes can be seen on the second channel.

5-5-86

"Welcome Mr. Halley! Science-I"
"Rats and Super rats, Grasses and Super Grasses"
"Oil Chemistry in USSR"

6-5-86

"Welcome Mr. Halley! Science-II"
"Rocks and Magnets"
"Newspaper"

7-5-86

"Welcome Mr. Halley Experiments and Findings"
"Measuring the size of stars"
"Electricity : Principles of Safety"

8-5-86

"Manmade Macromolecules"
"Comets"
"Spring in Sikkim"

9-5-86

"Home Science goes to Village"
"Gas Pressure"
"Science World"

10-5-86 (Second Saturday)

No Telecast

11-5-86 (Sunday)

No Telecast

12-5-86

"Challenging the Elements"
"Yamuna"
"Signals-I"

13-5-86

"Ionisation Energy"
"Signals-II"
"Conserve Energy"

14-5-86

"Music beyond the Frontier"
"Time Without End-I"
"Creative Endeavour"
"Security Plastic"

15-5-86

"Time Without End-II"
"Secondary Power Resources; New Vistas in Economising Fuel"
"The Housefly and its Control"
"Alcatraz"

CALENDAR OF EVENTS

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/Officer to be contacted
May 8-10, 1986	National Seminar on Interaction between research in Universities and Industries	To identify the industries where University research can play an important role and find out ways and means of active interaction between research in Universities and Industries	University of Delhi, Delhi	Dr. Yogesh Kumar, Department of Physics and Astrophysics, University of Delhi, Delhi
May 13-31, 1986	Orientation Programme on better utilization of irrigation resources	To acquaint the participants with the processes and problems relating to irrigation schemes, water management, rehabilitation, etc.	Centre for Social Studies, South Gujarat University, Surat in collaboration with Deptt. of Economics, M.S. University of Baroda	The Course Director, Centre for Social Studies, University Campus, Surat
May 19-24, 1986	Refresher course for practitioners in psychiatric social work	To acquaint the faculty members with advances in psychiatric social work	National Institute of Mental Health & Neuro-Sciences, Bangalore	The Director, NIMHANS, P.B. No. 2900, Bangalore
May 19-June 1, 1986	Summer School on Crystal Growth and Characterisation of Advanced Materials for Solid State Applications	An orientation course in (i) Experimental Crystal Growth; (ii) Theories of Crystal Growth; (iii) Nucleation; and (iv) Characterisation	Crystal Growth Centre, Anna University, Madras	Dr. P. Ramasamy, Crystal Growth Centre, Anna University, Madras
May 26-June 21, 1986	Summer School in Analysis and Probability	Topics covered are : Probability theory and Stochastic processes; Fourier analysis on R^n ; and Functional analysis.	Indian Statistical Institute, Calcutta	In-charge, Summer School 1986, Stat-Math Divn., Indian Statistical Institute, Calcutta

REGIONAL ENGINEERING COLLEGE, KURUKSHETRA 132119

Applications are invited from Indian Nationals for the following positions in the Teaching Departments of the College. Persons desiring to apply should submit their applications on the prescribed form which can be obtained from the Registrar, Regional Engineering College, Kurukshetra-132119, Haryana, by sending a written request accompanied by a Crossed Postal Order of Rs. 2.00 drawn in favour of the Principal, Regional Engineering College, Kurukshetra and payable at the Kurukshetra University Post Office. Applications duly filled in should reach the Principal, Regional Engineering College, Kurukshetra on or before 17th May, 1986.

Further details concerning these positions including specializations wherever needed, essential qualifications and desirable qualifications required, would be sent along with application forms.

1. Professors in the Pay Scale of Rs. 1500-60-1800-100-2000-125/2-2500

(Total emoluments at start of Scale at present Rs. 2950/- P.M.)

<i>Department</i>	<i>Approximate No. of Posts</i>
Civil Engineering	One
Mechanical Engineering	Two
2. Assistant Professors in the Pay Scale of Rs. 1200-50-1300-60-1900 (Total emoluments at start of Scale at present Rs. 2605/- P.M.)	
Civil Engineering	Five
Electrical Engineering	One
Electronics and Communication Engineering	One
Mechanical Engineering	One
3. Lecturers in the Pay Scale of Rs. 700-40-1100-50-1600 (Total emoluments at start of scale at present Rs. 1766.50 P.M.)	
Civil Engineering	Six
Electrical Engineering	Five
Electronics and Communication Engineering	Three
Mechanical Engineering	Ten

Provision for a higher start exists for exceptionally qualified and deserving candidates. In addition to pay and allowances the employee will be entitled to medical benefit for self and family, 10 per cent Contributory Provident Fund on confirmation, accommodation if available, on payment of usual rent, house rent allowance, if accommodation is not provided and Leave Travel Concession for self and family, once in two block years, and once in four years, all according to College rules.

Travelling allowance to the candidates called for interview will be paid, as per College rules.

PRINCIPAL

AIU Library & Documentation Services

One of the important functions of the Association of Indian Universities is to act as a clearing house of information on higher education in the country. Towards this end the AIU Library is engaged in collection, building and developing instruments for the dissemination of research information. Over the years a valuable collection of books and documents on different aspects of higher education has been acquired.

The Library has also developed Bibliography of Doctoral Dissertations as an effective tool in the dissemination of research information. Retrospective bibliographies covering the period 1857-1970 and 1970-75 were the first to appear. Effective 1975, however, the bibliography is issued annually in two volumes. One volume deals with Natural and Applied Sciences while the other records doctoral degrees awarded in Social Sciences and the Humanities. In addition to the normal bibliographical details like the name of the Research Scholar, the title of the thesis, years of registration for and award of the degree, and the name of the University accepting the thesis for award of a doctoral degree, the bibliography also gives name and complete address of the supervising teacher and an availability note that seeks to inform whether a copy of the dissertation is available for consultation and use in the University Library/Department or Registrar's Office.

The columns 'Theses of the Month' and 'Research in Progress' are intended to cut out the time lag between the receipt of information and its inclusion in bibliography. Such Universities as are not sending us regular information in respect of Doctoral Theses accepted and research scholars enrolled are welcome to make use of these columns.

The Library is open from 9.30 a.m. to 5.30 p.m. Monday through Friday.

RESEARCH IN PROGRESS

A list of Research Scholars Registered for Doctoral Degrees of Indian Universities

SOCIAL SCIENCES

Sociology

1. Karunakaran Nair, P.N. *Social aspects of acute diarrhoea among 'under fives' in Southern Kerala*. U Ker, Trivandrum. Dr. M. Indukumari.

Political Science

1. Amiya Kumar. *Office of the speaker in Bihar Legislative Assembly*. BHU, Varanasi. Dr. A.S. Upadhyay.
2. Archana Devi. *Dinkar ke sahitya mein rashtravad*. BHU, Varanasi. Prof. V.P. Gupta.
3. Ashok Kumar. *Bihar mein pichhare vargon ke rajniti: Arakshan andolan ka ek adhyayan*. BHU, Varanasi. Dr. S. Srivastava.
4. Dwivedi, Vandana. *A socio-political study of women members of Lok Sabha, 1977-1986*. BHU, Varanasi. Dr. P.D. Kaushik.
5. Kpoila, Ravi Mohan. *Class structure and political leadership in Nepal*. BHU, Varanasi. Dr. R.R. Jha.
6. Pandey, Supriya. *Mahatma Gandhi ke rajnitik chintan mein sangharsh ke taknik*. BHU, Varanasi. Prof. V.P. Gupta.
7. Rai, Dhanantar. *Bharatiya rashtriya andolan mein Varanasi ke bhoomika*. BHU, Varanasi. Prof. V.P. Gupta.
8. Ram, Kewal Dhari, *Herbet Maranse and his theory of revolution*. BHU, Varanasi. Dr. N. Pant.
9. Singh, Anand Kumar. *Significance of the elections to the European Parliament in the Intra-European community relations*. BHU, Varanasi. Prof. V.P. Gupta.
10. Singh, Arvind Kumar. *Bharatiya rashtriya andolan*

mein krantikariyon ke bhoomika, 1930-1947. BHU, Varanasi. Dr. T.N. Pant.

11. Singh, Ganga Bishum. *National Panchayat in Nepal: Problems and prospects*. BHU, Varanasi. Prof. V.P. Gupta.
12. Singh, Manju. *Problem of sub-nationalism in India with particular reference to 'Jharkhand Movement'*. BHU, Varanasi. Dr. A.S. Upadhyay.
13. Singh, Shesh Kumar. *Ramacharit Manas mein rajtantra*. BHU, Varanasi. Dr. H.N. Tripathi.
14. Sinha, Indrani. *Lok Sabha mein anusoochit jati ke sadasyon ke bhoomika, 1963-84*. BHU, Varanasi. Dr. B.L. Garg.
15. Tewari, Satya Prakash. *Panjab mein uprashtravad ke samasya : Antarashtriya ayam*. BHU, Varanasi. Dr. (Mrs.) Anjoo Sharan Upadhyaya.
16. Thomas, P.J. *The role of welfare programmes in the political socialisation of scheduled tribes : An analysis with special reference to tribal communities in Kerala*. U Ker, Trivandrum.
17. Upadhyay, Om Prakash. *Democratic movement in South Asia*. BHU, Varanasi. Dr. T.N. Pant.
18. Varkey, Shaji. *Big power involvement in Indo-China since 1975*. U Ker, Trivandrum. Dr. D. Jayadevadas.

Economics

1. Damodaran, A. *Externalities of borewell irrigation : A case study of Karnataka State*. U Ker, Trivandrum. Dr. K. Ramachandran Nair.
2. Jain, Alka. *Sansthaगत परिवर्तन एवं अर्थिक विकास: Dakshini Pashchimi Madhya Pradesh ke vishesh sandarbh mein*. Devi Ahilya, Indore. Dr. S.S. Pawar.

3. Mali, Krishna Govind. *A study of industrial relations with special reference to Menon and Menon Concerns*, Kolhapur. Shivaji U, Kolhapur. Dr. T.G. Naik.
4. Somwanshi, Bhanudas Chokhoba. *The economics of educational concessions with special reference to backward classes: Secs/Sts/NTs/DNTs : A case study of Maharashtra, 1950 to 1985*. Shivaji U, Kolhapur. Dr. T.G. Naik.

Law

1. Jaiswal, Reena. *English legal concepts and the Indian Law*. BHU, Varanasi. Prof. R.K. Mishra.
2. Kadam, Umesh Veersen. *A study of Space Law with specific reference to military uses of the outer space*. Shivaji U, Kolhapur.
3. Mazumdar, Ruby. *Corporate tax structure*. BHU, Varanasi. Prof. M. C. Bijawat.
4. Srivastava, Dinesh Kumar. *Meaning of income under the income tax, 1961*. BHU, Varanasi. Prof. M.C. Bijawat.

Education

1. Dubey, Krishna. *Students politics before and after independence : A case study of B.H.U.* BHU, Varanasi. Dr. H.C.S. Rathore.
2. Rai, Kamlesh. *A critical study of the implementation of the programme of universalization of elementary education in the state of U.P.* BHU, Varanasi. Prof. S.N. Singh.
3. Shukla, Janardan Prasad. *Differential personality trades of creative and noncreative students in relation to their S.E.S.* BHU, Varanasi. Dr. S.S. Srivastava.

Commerce

1. Abdul Rashid. *Follow-up of UPFC financed projects : A case study*. BHU, Varanasi. Dr. M.N.A. Ansari.
2. Acharya, Sanjay. *Madhya Pradesh ke arthik vikas mein panchvarsheeya yojananatargat rajkeeya kshetra ka yogdan, 1961-85*. HS Gour, Sagar. Dr. O.P. Agrawal.
3. Dubey, Saroj. *Sagar sambhag mein grameen adhikoshan ke gutividhiyon ka mulyankan*. HS Gour, Sagar. Dr. M.D. Goswami.
4. Gupta, Amar Nath. *Industrial sickness with reference to financial and managerial constraints: A case study*. BHU, Varanasi. Dr. M.N.A. Ansari.
5. Jain, Heetalal. *Madhyapradesh Audyogik Vikas Nigam: Ek arthik adhyayan*. HS Gour, Sagar. Dr. V.K. Jain.
6. Katiyar, Rajesh Kumar. *Financial management in U.P. State co-operative spinning mills*. BHU, Varanasi. Dr. Vinay Kumar.
7. Kohli, Sunil Kumar. *Working of the Industrial Finance Corporation of India : A critical study*. BHU, Varanasi. Prof. S.N. Mehrotra.
8. Kushwaha, Janardan Singh. *A critical study of industrial backwardness in Eastern U.P.* BHU, Varanasi. Dr. D. Mallick.
9. Prasad, Shiva Dhani. *Problems and prospects of small scale industries in Uttar Pradesh with special reference to Varanasi District*. BHU, Varanasi. Dr. S.P. Srivastava.
10. Rai, Ashok Kumar. *Banking system in Thailand*. BHU, Varanasi. Dr. O.P. Rai.
11. Rawat, Suneeta. *Export promotion and foreign trade of India*. HS Gour, Sagar. Dr. O.P. Agrawal.
12. Sharma, Gulshan Rai. *An enquiry into the nature and problems of tourism industry in development economics with particular reference to Indian context*. HS Gour, Sagar. Dr. H.C. Sunny.
13. Shukla, Amod Kumar. *Marketing strategy of the Life Insurance Corporation of India*. BHU, Varanasi. Dr. M.N. Mishra.
14. Singh, Brijendra Kumar. *Institutional finance for small scale industries in U.P.* BHU, Varanasi. Dr. S.P. Srivastava.
15. Singh, Suresh. *Working of Unit Trust of India*. BHU, Varanasi. Dr. Vinay Kumar.
16. Srivastava, Arun Kumar. *Industrial sickness in sugar industries in U.P.* BHU, Varanasi. Dr. S.P. Srivastava.
17. Tej Prakash. *Union excise duty in India's tax structure*. BHU, Varanasi. Dr. Vinay Kumar.

18. Thapa, Ram Bhakta. *Balance of payments problems and adjustment policies : A case study of Nepal*. BHU, Varanasi. Prof. R.A. Singh.

19. Vernekar, Sachchidanand Shripad. *A study of development, problems and prospects of Chadder industry in Solapur*. Shivaji U, Kolhapur. Dr. K.G. Pathan.

20. Virendra Kumar. *Central sales tax in India*. BHU, Varanasi. Prof. S.N. Mehrotra.

Home Science

1. Ramamurthy, Savitri. *Management practices of women entrepreneurs in the Union Territory of Delhi : Small and tiny sector industries*. U Delhi. Dr. S. Anandalakshmi.
2. Sireesha, V. *Emotional and social adjustment of orthopaedically handicapped children*. U Delhi. Dr. S. Anandalakshmi.

Management

1. Singh, Usha Kiran. *Advertising agency operations: A case study of selected agencies in India*. BHU, Varanasi. Dr. Abrar Ahmad.
2. Talpatra, Sunirmal. *Bank management : Policies and practices regarding SSI financing by commercial banks in India : A case study*. BHU, Varanasi. Dr. R.M. Srivastava.

HUMANITIES

Philosophy

1. Bharadwaj, Shradhha. *Jai Rashi Bhatt krit Tatvopaplava Singh ka ek sameekshatmak adhyayan*. BHU, Varanasi. Dr. S.P. Vyas and Dr. D.A. Gangadhar.
2. Chakravorty, Biswanath. *Nimbark darshan ka sameekshatmak adhyayan*. BHU, Varanasi. Dr. D.A. Gangadhar.
3. Mishra, Nagendra. *Tree Salta in vedanta*. BHU, Varanasi. Dr. M.N. Wali and Dr. U.C. Dubey.
4. Mishra, Sunil Shekhar. *Relevance of advaita vedant today*. BHU, Varanasi. Prof. N.S.S. Raman.
5. Mundra, Krishna Kumari. *Practical vedanta of Veekanda*. BHU, Varanasi. Dr. U.C. Dubey.
6. Pandey, Ramtej. *Advaita vedant mein Brahma ka swarup*. BHU, Varanasi. Prof. L.V. Guru and Dr. R.R. Pandey.
7. Raghav Sharan. *Shrimadbhagvatedarshantattwa vimarshah*. BHU, Varanasi. Pd. Shree Trinath Sharma.
8. Srivastava, Lallan Prasad. *Ayurveda evam Bharatiya Darshan ke pariprekshya mein Panch Mahabhut ka swaroop*. BHU, Varanasi. Prof. L.V. Guru and Prof. L.N. Sharma.
9. Vijai Kumar. *Kurm sidhant : Jain evam Baudh dorshanon ke vishesh pariprekshya mein*. BHU, Varanasi. Dr. M.C. Singh and Dr. B.N. Singh.
10. Vyanjana. *Buddhist ethics*. BHU, Varanasi. Prof. L.N. Sharma.

Fine Arts

1. Arora, Anoop Kumar. *Signs and symbols in our society*. BHU, Varanasi. Prof. A.P. Gajjar.
2. Pandey, Hriday Ballabh. *Prakriti ke sarangchnaon ka adhunik shilp per prabhav*. BHU, Varanasi. Sri S.S. Katt.

Language and Literature

English

1. Mattu, Sunita. *Philip Larkin : A sociological study*. BHU, Varanasi. Prof. S.M. Pandeya and Prof. R.S. Sharma.

Persian

1. Murugesan, K. *Syntactic structure of sentence with secondary predication in English and Russian: A comparative analysis*. U. Ker, Trivandrum. Dr. A.A. Vitlipas and Dr. Elias Valentine.

Punjabi

1. Yadav, Kuldip Singh. *Samakali yatharath ate adhunik Panjabi Kavita*. Pb U, Chandigarh. Dr. Om Prakash Vasishtha.

Urdu

1. Farzana Begum. *Wamiq Jaunpuri: Hayat aur sair*. BHU, Varanasi. Dr. Qamar Jahan.
2. Iqbal Ahmad. *Faiz Ahmad Faiz : Hayat aur karnama*. BHU, Varanasi. Dr. Qamar Jahan.
3. Khan, Abdul Alim. *Bahadur Shah Zafar aur unke darbari shoara*. BHU, Varanasi. Dr. Qamar Jahan.
4. Zafrul Islam. *Maulana Abdul Kalam Azad*. BHU, Varanasi. Dr. Qamar Jahan.

Geography

1. Gupta, Subir Das. *A geographical analysis of tea industry in Assam*. BHU, Varanasi. Dr. M.B. Singh.
2. Mishra, Chandra Shekhar. *Resource development and potentials in planning of Sahadol District, M.P.* BHU, Varanasi. Dr. P.R. Sharma.
3. Mishra, Uma Shanker. *Service centre and rural development in Naugarh Tehsil, Mirzapur*. BHU, Varanasi. Dr. Nirmal Kaushik.
4. Singh, Dinesh. *Transformation of rural habitat in Chritgaon, Varanasi*. BHU, Varanasi. Prof. K.N. Singh.
5. Singh, Suresh. *Transformation of rural habitat: A study of Ghatampur Block, Kanpur*. BHU, Varanasi. Dr. R.Y. Singh.
6. Tripathi, Rajendra Kumar. *Integrated rural area development*. BHU, Varanasi. Dr. V.R. Singh.

History

1. Chaurasia, Shashi. *Shiv kee samanvyaya murtiyan*. BHU, Varanasi. Dr. (Mrs.) Kamal Giri.

2. Jadhav, Madhukar Jagu. *The role of Sarva Janik Sabha in the public life of Bombay Presidency, 1870-1920*. Shivaji U, Kolhapur. Dr. A.R. Bhosale.
3. Mahesh Chandra. *Ancient Indian religions*. BHU, Varanasi. Prof. J.N. Tiwari.
4. Mishra, Kanak Lata. *Pali sahitya ke adhar per Buddha ke samaya Uttar Bharat kee samajik sthiti*. BHU, Varanasi. Dr. T.P. Verma.
5. Purushottam, Prarambhik. *Gurajara-Pratihara, Raja aur unka samya*. BHU, Varanasi. Dr. P.K. Agrawal.
6. Roy, Shyamali. *Decorations of pottery of early historic period of North India*. BHU, Varanasi. Dr. (Miss) V. Jayaswal.
7. Sharma, Madhu. *Materials and industrial guilds in socio economic life of Ancient India*. BHU, Varanasi. Prof. V.C. Srivastava.
8. Singh, Anil Kumar. *Abhilekha se gyat Gupta kaleen jeeva*. BHU, Varanasi. Dr. P.R. Agrawal.
9. Singh, Om Prakash. *Mrichh katik natak mein varnit bidhik samagri ka adhyayan*. BHU, Varanasi. Dr. A.L. Yadav.
10. Srivastava, Anil Kumar. *Pracheen Bharat mein Ganga*. BHU, Varanasi. Dr. P.K. Agrawal.
11. Srivastava, Umesh Chandra. *Madhya Bharat mein tirihon ka sthan*. BHU, Varanasi. Prof. Lallanji Gopal.
12. Tiwari, Shobha. *Socio-economic history of Ancient India*. BHU, Varanasi. Prof. L.N. Tripathi.
13. Upadhyaya, Jagadamba Prasad. *Metal implements in Ancient India from earliest times upto Circa Hind Can. B.C.* BHU, Varanasi. Prof. J.N. Tiwari.
14. Yadav, Kiran. *Sahityik sakshayon mein Bhatukaram*. BHU, Varanasi. Dr. (Mrs.) V. Tripathi.

THESES OF THE MONTH

A list of Doctoral Theses Accepted by Indian Universities

SOCIAL SCIENCES

Library Science

1. Sangam, S.L. *A citation analysis of doctoral dissertations in social sciences accepted by the Karnatak University, Dharwad during 1964 to 1982*. Gulbarga U.

Psychology

1. Dasgupta, Suli. *Effect of prolonged deprivation on cognitive processes, personality achievement motivation and academic achievement of adolescents*. U Calcutta.
2. Padhee, Brahmananda. *Development of memory and categorization skills in schooled and unschooled children*. Utkal U, Bhubaneswar.
3. Singh, Shrikant. *A study of educational choice of arts and science college students of upper and lower socioeconomic groups*. Mag U, Bodh Gaya.
4. Tuli, Kailash Chander. *An explorative study of some aspects of machine produced stress in the man-machine system*. U Delhi.

Sociology

1. Annapurna Devi. *Socio-political background of women in Orissa politics*. JNU, Delhi.

2. Bajpai, Uma. *Vidisha Nagar kee madhyam vergiya kam-kajee mahilayon ka ek samajshastriya adhyayan*. Bhopal U.
3. Chauhan, Indira. *Modernisation and female employment problems of working women in Bhopal City*. Bhopal U.
4. Sarkar, Chandana. *Juvenile delinquency in West Bengal: A sociological analysis*. U Calcutta.
5. Sen, Ilina. *Low and declining sex ratio in India, 1901-71: Towards an explanatory frame work*. JNU, Delhi.
6. Singh, Satyendra Narayan. *A study of social and psychological attitudes in modern perspectives*. Mag U, Bodh Gaya.
7. Sundari, T.K. *Caste and the agrarian structure: A study of Chingleput District*. JNU, Delhi.
8. Vijaya Babu, M.H. *A study of adoption of family planning in Anantpur District, Andhra Pradesh*. SKU, Anantapur.

Political Science

1. Bandyopadhyay, Bharati. *Dimensions of leadership: A study of political leadership in West Bengal*. U Calcutta.
2. Chakrapong, Hirunvorn. *Local self-government in Thailand and India: A comparative study*. SPU, Vallabh Vidyanagar.
3. Khare, Neeta. *The role of the Principal in the management of Govt. Colleges with special reference to Madhya Pradesh*. Bhopal U.

4. Rajkumari. *Panchayati Raj padhyati mein kshetra pramukhon kee bhumika*. Avadh U.

5. Roy, Prabir Kumar. *Freedom of speech and expression and the problem of decency and morality in the Indian Constitution: A case study*. RBU, Calcutta.

6. Shrivastava, Poonam. *Bharatiya lok tantra aur Muslim abhijan: Gonda janpad ka ek adhyayan*. Avadh U.

7. Srivastava, K.K. *Nagarpalika shashan evam rajniti: Kummaun Tarai kshetra ka ek adhyayan*. Kum U, Nainital.

Economics

1. Bandyopadhyay, Debdas. *A study of industrial growth and stagnation in Eastern India with special reference to West Bengal*. U Calcutta.

2. Deka, Bandhu Ram. *Agricultural credit in Assam: A study on institutional sources from 1951-1974*. Gauhati U.

3. Gupta, Narsingh Hari. *Social security for labour: A study of legislative and judicial trends in India*. U Raj, Jaipur.

4. Jain, Bhanwar Lal. *Depreciation accounting in National Ball Bearing Industry*. U, Raj, Jaipur.

5. Jain, Sulochana. *Madhya Pradesh mein mahila audyogik shramik*. Bhopal U.

6. Mongia, Puran Bhagat. *Some aspects of regional economic cooperation in South Asia: International trade in Jute*. U Delhi.

7. Nancharaiyah, Gummadi. *Caste and land: A study of shifts in land ownership in a South Indian Village*. Andhra U, Waltair.

8. Rautela, C.S. *Socio-economic study of rural migration in Almora District*. Kum U, Nainital.

9. Shyama Kumari. *Madhya Pradesh kee adivasi vikas yojnaon ka mulyankan*. APSU, Rewa.

10. Tirupathi Raju, Alamuri. *Performance of nationalised banks in financing agriculture: A case study of Visakhapatnam District*. Andhra U, Waltair.

11. Venkubai, Angara. *Impact of new technology on farm employment and welfare in Andhra Pradesh*. Andhra U, Waltair.

Public Administration

1. Rizwana, Arjumand. *Trends in urban development and management: A study of A.P.* OU, Hyderabad.

Education

1. Bals, Hardayal Singh. *A historical survey of education administration in India from early European settlers to transfer of powers of Indian hands i.e. 1600 A.D. to 1920 A.D.* HS Gour, Sagar.

2. Baraiya, Vaghjibhai Vashrambhai. *A study of the organizational climate of higher secondary school of Gujarat State in relation to certain variables*. SPU, Vallabh Vidyanagar.

3. Bhatt, Devendrakumar Chunilal. *An investigation into the various components of textbooks in English in stds XI and XII of Gujarat State*. SPU, Vallabh Vidyanagar.

4. Bhudev Singh. *A study of the effect of a specially designed teaching strategy and some socio psychological factors on creativity among middle school children*. Avadh U.

5. Dubey, Rajeshwari. *Study of the personality traits of pupil teachers towards successful integration of instructional skills*. Bhopal U.

6. Kathuria, Kavita. *A study of self concept and adjustment of adolescents*. HS Gour, Sagar.

7. Maitra, Krishna. *Affective correlations of the gifted underachievers*. U Delhi.

8. Mansuri, Abdulsattar Rasulbhai. *A study of achievement of motivation of students of Stds. V, VI and VII in relation to some psychosocio factors*. SPU, Vallabh Vidyanagar.

9. Mathew, A. *Missionary attitude towards higher education and nationalism in Madras Presidency, 1872-1930*. JNU, Delhi.

10. Parmar, D.S. *A cross sectional study of concept attainment and development of logic in school students*. Bhopal U.

11. Pathani, R.S. *Psycho-social developmental stage (identity Vs role confusion) self evaluation (self concept) and need (self actualizing) as predictors of academic achievement: A study*. Kum U, Nainital.

12. Sarkar, Sudhir Chandra. *A comparative study of the role perception and job satisfaction of headmasters and teachers in relation to organisational climate of secondary schools in Dacca City, Bangladesh*. Pb U, Chandigarh.

13. Tripathi, Dinbandhu. *Paryavekshkon ke vyaktitva ka alochnatmak adhyayan*. Avadh U.

14. Verma, Mordhwaja. *Factors affecting academic achievement: A cross cultural study of tribal and non tribal students at the junior High School level in U.P.* Avadh U.

Commerce

1. Biradar, Rajendra Dhanaji. *A study of dairy development in Osmanabad District, Maharashtra*. Marath U, Aurangabad.

2. Chakrabarti, Bijay Kumar. *Studies in some aspects of public sector management: A case study of West Bengal*. U Calcutta.

3. Choudhary, D.S. *Dugdh ka sekhari vipnan: Ujjain Jile ke vishesh sandurbh mein*. Bhopal U.

4. Jain, Jinendra Kumar. *Madhya Pradesh mein shakkar udyog ka arthik adhyayan*. HS Gour, Sagar.

5. Khursange, Govind Marotraoji. *Madhya Pradesh Vipnan Singh: Karyon evam uplabadhiyon ka mulyankan*. HS Gour, Sagar.

6. Majumdar, Dulalchandra. *Problem of growth and development of Indian marine products with particular reference to quality control and standardization of products*. U Calcutta.

7. Mukhopadhyay, Abaninath. *Limitation of balance sheet*. U, Calcutta.

8. Sahini, S.S. *Role of insurance in the economic development of India*. Kum U, Nainital.

9. Shanmugam, V. *A study of the operational efficiency of cooperative milk supply societies in Madurai District*. Madurai Kam U.

10. Sudarshan, T.K. *Economic philosophy of Mahatma Gandhi: Its relevance in the present Indian context*. HS Gour, Sagar.

Folklore

1. Goswami, Bhriugu Mohan. *A study of the Ojapali art form of Assam*. Gauhati U.

Home Science

1. Gupta, Sushma. *Studies on the energy balante of Indian women*. PAU, Ludhiana.

2. Harjeet Kaur. *Knowledge, practices and needs of rural homemakers in grain storage in selected villages in Ferozepur District of Punjab*. PAU, Ludiana.

Management

1. Bhandarkar, Asha. *Managerial stress with special reference to public enterprise*. OU, Hyderabad.

2. Myrtle, Pereira Gladys. *Environmental protection pressure groups in Kerala: A study on their structure, strategy and role with special reference to industrial pollution*. U Cochin.

ALI YAVAR JUNG NATIONAL INSTITUTE FOR THE HEARING HANDICAPPED, BOMBAY.

Kishanchand Marg, Reclamation, Bandra (W), Bombay-400 050

(An autonomous Registered Society under the Administrative Control
of Ministry of Welfare, Govt. of India)

Invites applications for the following posts as per details given below:

Sr. No.	Name of the Post	No. of Post(s)	
1.	Lecturer in Audiology/Speech and Language Pathology/Clinical Psychology/Education.	7 (One each for Hyderabad and Delhi)	For Lecturer in Education—Post Graduate with Diploma/Certificate in Education of the Deaf and five years teaching experience OR a Graduate with Certificate/Diploma in Education of the Deaf with 7 years teaching experience.
2.	Lecturer and Training Coordinator (at Delhi and Hyderabad)	2	For post at : Sr. No. 3 M.Sc. with Degree in Library Science with specialization in computers.
3.	Information and Documentation Officer (Senior)	1	For post at : Sr. No. 4 M.Sc. with degree in Library Science with 2 years experience or B.Sc. with degree in Library Science with 7 years experience.
4.	Information and Documentation Officer (Junior)	1	
5.	Mass Media Officer	1	For Post at : Sr. No. 5 Graduate of any faculty with a Diploma/Degree in Mass Communication/journalism with 2 yrs. experience.
6.	Accounts Officer	1	
7.	Electronic Technician	1	For post at : Sr. No. 6 Any graduate and S.A.S. examination passed with 2 years experience as Section Officer/Commerce Graduate and Diploma in accounts with 5 years experience.
8.	Clinical Assistants, Audiology/Education/Earmould/Psychology/Material Development/Speech and Language Pathology.	9 (3 posts at Delhi).	For post at : Sr. No. 7 Diploma in Electronics of any Govt. recognised Institute.
9.	Social Welfare Officer	1	For posts at : Sr. No. 8 For Audiology/Earmould/Speech Pathology—B.Sc. in Audiology and Speech Therapy/B.S.T.A.S.T.
10.	Medical Record Officer	1	For Clinical Psychology—B.Sc. in Psychology.
11.	Junior Engineer (Civil)	1	For Education—Graduate with certificate in education of the deaf.
12.	Electrician	1	For Material Development—Degree Holder/Diploma in any applied art, with experience in making audiovisuals and knowledge of print media.
13.	Artist	1	For post at : Sr. No. 9 Master of Social Work (M.S.W.) of any Govt. recognised Institute.
14.	Library Clerk	1	For post at : Sr. No. 10 Graduate with one year diploma in Medical Records with 2 years experience.
15.	Plumber-cum-Pump Operator	1	

Minimum Qualifications

For posts at : For Lecturer in Audiology/Speech Pathology—M.Sc. in Audiology and Speech Pathology with 2 years experience OR B.Sc. in Audiology and Speech Pathology with 7 years experience in teaching.
For Lecturer in Clinical Psychology—M.A. in psychology with 2 years teaching experience.

For post at : Diploma in Civil Engineering from an
Sr. No. 11 Institute recognised by the Central/
State Government or equivalent there-
of.

For post at : 2 years ITI course with minimum 2
Sr. No. 12 years experience of original work of
wiring. LT and HT with boards regu-
lar maintenance and repairs and hav-
ing State Government (P.W.D.)
Wireman's Certificate.

For post at : G.D. (Arts) from a recognised school
Sr. No. 13 of art. Experience as visualizer/illus-
trator in any recognised institution.

For post at : S.S.C. with diploma in library science.
Sr. No. 14

For post at : 2 years (Govt. recognised) ITI course
Sr. No. 15 with minimum experience of 2 years
of execution of plumbing work and
maintenance and repairs.

Pay Scales

Post at Sr. Nos. 1,2,4, and 5	Rs. 700-1300/-
Posts at Sr. Nos. 3	Rs. 1100-1600/-
Posts at Sr. No. 6	Rs. 840-1200/-
Posts at Sr. No. 7	Rs. 550-900/-
Posts at Sr. Nos. 8 and 9	Rs. 440-750/-
Posts at Sr. Nos. 10 and 11	Rs. 425-700/-
Post at Sr. No. 12	Rs. 330-480/-
Posts at Sr. No. 13	Rs. 330-560/-
Posts at Sr. Nos. 14 & 15	Rs. 260-400/-

Age :

Posts at Sr. Nos. 1 to 6	: Not exceeding 35 years.
Posts at Sr. Nos. 7 to 15	: Not exceeding 30 years.

Applications giving full details such as Name in full, Postal address, Date of birth, Educational qualifications with zerox copies of certificates. Details of experience should be forwarded to the Director, Ali Yavar Jung National Institute for the Hearing Handicapped, Bombay, Opp. Bandra Telephone Exchange, K.C. Marg, Bandra (W) Reclamation, Bombay 400 050 within 10 days from the date of advertisement.

Note :

3 posts of Clinical Assistants are reserved for SC/ST/Ex-servicemen. In the event that these candidates do not become available the posts will be filled up by others on year to year basis.

CLASSIFIED ADVERTISEMENTS

PANJAB UNIVERSITY

CHANDIGARH

Advertisement No. GP-1/86/JRF

Applications are invited for the award of the following UGC Junior Research Fellowships so as to reach the Registrar, alongwith postal order of Rs. 10/- by a5.5.1986.

- (i) Sciences : Bio-Chemistry (1), Botany (4), Bio-Physics (2), Chemistry (2), Geology (2), Mathematics (1), Microbiology (3), Physics (3), Pharmaceutical Sciences (1), Statistics (1) & Zoology (2).
- (ii) Humanities & Social Sciences: Ancient Indian History Culture & Archaeology (1), Commerce (1), Central Asian Studies (1), Economics (2), English (2), Fine Arts (1), Gandhian Studies (1), Geography (1), History (1), Hindi (1), Laws (1), Library Science (1), Political Science (1), Sanskrit (1) and Sociology (2).
- (iii) Eligibility/Qualifications : Only those candidates should apply who have qualified the UGC National Educational Testing

(NET) for the award of UGC JRFs provided they also possess the following qualifications :

- Either, atleast, a high second class Master's degree with a second class Bachelor's degree or atleast second class Master's degree with first class Bachelor's degree.
- (iv) Value of fellowship : Rs. 1000/- p.m. (fixed). The fellowship will be raised to Rs. 1200/- p.m. (fixed) after evaluation of the work of the scholar on completion of a period of two years. The contingency grant in Science subjects is Rs. 5000/- p.a. and in the case of Humanities and Social Sciences Rs. 3000/- p.a., which can be enhanced in deserving cases to Rs. 5,000/-p.a.
- (v) Age : Preferably below 30 years (40 years in case of Women candidates).
- (iv) Tenure of fellowship : The total tenure of JRFs for doing Ph.D. will be for three years initially and extendable by one year. House Rent allowance is admis-

sible in case accommodation is not provided in the University Hostels.

Note

1. The candidates whose results for qualifying examinations are not declared by the closing date, may also apply. They shall intimate their results (if otherwise eligible) to the concerned departments before the date fixed for selection.
 2. A photocopy of UGC letter regarding qualifying the NET alongwith attested copies of certificates/testimonials and details of bio-data should be attached with the application.
- Application forms can be had from the Cashier, Panjab University, Chandigarh personally on payment of Rs. 2/- or by making written request to the Finance and Development Officer, P.U., Chandigarh accompanied with a self-addressed stamped envelope of 23 x 10 cms and postal order of Rs. 2/- drawn in favour of Registrar, P.U., Chandigarh.

INDIAN INSTITUTE OF TECHNOLOGY

P. O. IIT, POWAI, BOMBAY 400 076
Advertisement No. C-42/86

Applications on plain paper are invited for the following permanent post at the Computer Centre of this Institute. Persons employed in Government/Semi-Government organisations or Educational Institutions should apply through proper channel. The posts carry allowances such as D.A., C.C.A., H.R.A. as per rules of the Institute which at present correspond to those applicable to the Central Government employees stationed at Bombay. Depending on qualifications and experience, a higher salary may be offered.

The Institute has a number of mini and micro-computing facilities. A fourth generation main frame Computer System (Cyber-180/840) will be shortly installed at the Computer Centre which looks after the computing requirements of the Institute and other organisations. With the Cyber-180/840 Computer System, the Computer Centre will be one of the most modern and sophisticated Centres in India.

SYSTEMS MANAGER

The incumbent will either be appointed in the pay scale of Rs. 1500-60-1800-100-2000 or Rs. 1500-60-1800-100-2000-125/2-2500 depending on the qualifications and experience of the candidate.

Total emoluments on the minimum of the scale excluding H.R.A. } : Rs. 3245/-

Systems Manager will be responsible for the overall management of the Computer Centre and will assist the Head, Computer Centre in planning and management of the various facilities at the Centre. Specifically, his responsibilities include :

- Supervision at all the operational and maintenance requirements of the Centre.
- Interaction with the Computer users.
- Regular performance monitoring and tuning of the system(s) available at the Centre.
- Software acquisition and installation.
- Software development and maintenance.
- Planning and conducting short-term courses primarily for the Computer users.
- Planning and preparing relevant documentations for the computer users.
- Attending to any other duties/responsibilities as may be assigned by the authorities of the Institute and the Head of the Computer Centre.

The Systems Manager will lead a team of Software Engineers and Operational staff and he may be provided with accommodation on priority basis and on payment of licence fee as per the rules of the Institute.

Qualifications

- M.E./M. Tech./B.E./B. Tech. in Computer Science or in any field of engineering with good academic record;

OR

- M.Sc. in Computer Science/Mathematics/Physics with good academic record.

Experience

The candidates should have at least 10 years of relevant experience, out of which not less than 3 years should be in systems programming and at least 2 years must be in a supervisory position. Some exposure to the internals of a contemporary operating system is essential. Experience with a large time-sharing Computing facility is desirable.

Age Limit : Not exceeding 40 years.

Candidates who possess the requisite qualifications and experience may apply stating full name and address, date of birth, details of academic qualifications and experience with copies of certificates, testimonials, list of publications, if any, and the names of three referees with their postal addresses to the Registrar, Indian Institute of Technology, Powai, Bombay-400 076, on or before 15th May, 1986 along with a crossed postal order for Rs. 7.50. The candidates belonging to SC/ST communities need not send a postal order.

REGISTRAR

INDIAN INSTITUTE OF TECHNOLOGY

P. O. IIT, POWAI, BOMBAY-400076

Advertisement No. C-45/86

Applications on plain paper are invited for the following permanent posts at the Computer Centre of this Institute. Persons employed in Government/Semi-Government Organisations or Educational Institutions should apply through proper channel. The posts carry allowances such as D.A., C.C.A., H.R.A. as per rules of the Institute which at present correspond to those applicable to the Central Government employees stationed at Bombay. Depending on qualifications and experience, a higher salary may be offered.

The Institute has a number of mini and micro-computing facilities. A fourth generation main frame Computer System (Cyber-180/840) will be shortly installed at the Computer Centre which looks after the computing requirements of the Institute and other organisations. With the Cyber-180/840 Computer System, the Computer Centre will be one of the most modern and sophisticated Centres in India.

(1) Software Engineer

Scale of Pay : Rs. 1200-50-1300-60-1900
(Total emoluments on the minimum of the Scale : Rs. 2,915/-).

The incumbent, in addition to assisting Systems Manager, will plan and carry out the following duties :

- Regular performance monitoring and tuning of the system(s) available at the Centre.
- Software installation, development and maintenance.

- Planning and conducting short-term courses primarily for the Computer users.

- Planning and preparing relevant documentations for the Computer users.

Qualifications

- M.E./M.Tech./B.E./B.Tech. in Computer Science or any field of engineering with good academic record;

OR

- M.Sc. in Computer Science/Mathematics/Physics with good academic record.

Experience

The candidates should have at least 5 years of relevant experience, out of which not less than 2 years should be in design of system and application software for large systems. Some exposure to the internals of a contemporary operating system is essential.

Age Limit : Not exceeding 35 years.

(2) Senior Programmer

Scale of Pay : Rs. 700-40-1100-50-1600
(Total emoluments on the minimum of the Scale : Rs. 1,953/-).

Qualifications & Experience

- Bachelor's degree in Engineering/M.Sc. in Computer Science with good academic record and at least three years experience in software and applications package development in reputed concern;

OR

- M.Tech with specialisation in Computer Science with relevant project experience and good academic record;

OR

- M.E./M.Tech. in any discipline of engineering with good academic record; and at least one year experience in software and applications package development in a reputed concern.

In case the candidate does not possess the requisite experience, he may be offered a post of Junior Programmer in the scale of Rs. 550-25-750-EB-30-900.

Age Limit : Not exceeding 30 years.

Depending upon the availability, the Institute may provide residential accommodation on payment of usual licence fee etc. to the selected candidates.

Candidates who possess the requisite qualifications and experience may apply stating full name and address, date of birth, details of academic qualifications and experience with copies of certificates, testimonials, list of publications, if any, and the name of three referees with their postal addresses to the Registrar, Indian Institute of Technology, Powai, Bombay-400 076 on or before 20th May 1986 along with a crossed postal order for Rs. 7.50. The candidates belonging to SC/ST communities need not send a postal order.

REGISTRAR

THE CENTRAL UNIVERSITY PONDICHERRY-605 001

Employment Notice-Advt. No. 2/86-87

Applications are invited from Indian Citizens for filling up the following posts in the Pondicherry Central University Service on or before 30th May, 1986.

A. Teaching vacancies in M. Phil. Departments at Mahe, Karaikal and Pondicherry

Professors

Tamil, English, Mathematics, Economics and Commerce Departments.

Scale of Pay

Rs. 1500-60-1800-100-2000-125/2 2500 plus usual allowances.

Qualifications

- Ph.D. in the subject with a record of published work of high standard;
- Consistently good academic record with a First or High Second Class Master's Degree in the subject.

Experience

Minimum Ten years experience in handling Post-graduate classes in Colleges/University Departments or guiding research work at M. Phil./Ph.D. levels.

Age

Not more than 50 years.

2. READERS

Tamil, English, Mathematics, Economics and Commerce Departments.

Scale of Pay

Rs. 1200-50-1300-60-1900 plus usual allowances

Qualifications

- Ph.D. in the subject with a record of published work of high standard;
- Consistently good academic record with first class or high second class Master's Degree in the subject.

Experience

Minimum five years experience in handling Post-graduate classes or guiding research work at M.Phil./Ph.D. levels.

Age

Not more than 45 years.

3. LECTURERS

Tamil, English, Mathematics, Economics and Commerce Departments.

Scale of Pay

Rs. 700-40-1100-50-1600 plus usual allowances.

Qualifications

- Consistently good academic record with First Class or High Second Class Master's Degree in the subject.
- Ph.D. in the subject or research work of equally high standard

Experience

Minimum three years experience in handling classes for Post-Graduate students or guiding research work at M.Phil./Ph.D levels.

Age

Not more than 40 years.

B. Posts in the Office of the Vice-Chancellor

1. PLANNING AND DEVELOPMENT OFFICER

Scale of Pay

Rs. 1200-50-1300-60-1900 plus usual allowances.

Qualifications

First Class or High Second Class Master's Degree of a recognised University followed by a Ph.D. with high academic record.

Desirable

Experience in academic Planning and Administration.

Age

Not more than 40 years

2. PUBLIC RELATIONS OFFICER

Scale of Pay

Rs. 700-40-900-EB-40-1100-50-1300 plus usual allowances.

Qualifications

First or High Second Class Master's Degree of a recognised University.

Desirable

Professional experience in Journalism, Media control and Public Relations in Universities / Government / Private firms / Newspapers/TV/Radio etc.

Age

Not more than 40 years

C. Posts in University Library

1. DEPUTY LIBRARIAN

Scale of Pay

Rs. 1200-50-1300-60-1900 plus usual allowances.

Qualifications

A Post-graduate degree in Arts or Science of a recognised University plus a Master's Degree in Library Science.

Experience

At least Seven years' experience as a Librarian or in handling library systems in recognised Libraries.

Age

Below 40 years

2. ASSISTANT LIBRARIAN

Scale of Pay

Rs. 700-40-1100-50-1600 plus usual allowances.

Qualifications

A Post-graduate degree in Arts or Science of a recognised University with a degree in Library Science.

Experience

3 years experience in a professional capacity in a recognised Library.

Age

Below 35 years.

D. Posts in University Estate Office

1. JUNIOR ENGINEERS

Scale of Pay

Rs. 425-15-500-EB-15-560-20-700-EB-25-800 plus usual allowances.

Qualifications

Degree in Civil/Mechanical/Electrical Engineering or Diploma in Civil/Mechanical/Electrical Engineering with three years experience in the relevant field.

Age

Not more than 35 years.

2. DRAUGHTSMAN

Scale of Pay

Rs. 330-10-380-EB-12-500-EB-15-560 plus usual allowances.

Qualifications

Diploma in Civil Engineering.

Desirable

Field experience of atleast 2 years.

Age

Not more than 35 years.

- Note :** (1) In addition to pay, the posts in Pondicherry Central University Service carry all allowances as per UGC norms.
(2) Higher start in the prescribed scale may be given in deserving cases, on the recommendations of the Selection Committees.
(3) In exceptional cases of merit, Selection Committee may relax age limit.

APPLICATION FORMAT

Six copies of typed applications on white foolscap size paper containing all relevant information indicated in the format given below alongwith attested copies of Degrees, Diploma, Age etc. certificates and testimonials should be sent by Registered Post to the Registrar, Central University, Pondicherry, Shri Ram International Buildings, 212, Anna Salai, Pondicherry-605 001 so as to reach him on or before 30th May, 1986, the last date for receipt of applications.

FORMAT

Application for the post of _____

- Name of Applicant
- Nationality and Sex
- Address (to which communication to be sent)
- Age and date of birth
- Community (BC/SC/ST/with Community Certificates)
- Qualifications
- Experience
- Present position
- Any other relevant information
- Two references (with names and addresses)
- List of enclosures

Date:

Signature of the applicant

Applications should be accompanied with the prescribed fee of Rs. 25/- for each post (Rs. 8-50 for candidates belonging to Scheduled Castes and Scheduled Tribes) in the form of crossed Indian Postal Order drawn in favour of "Central University, Pondicherry-605 001".

Candidates called for interview from outstations will be paid return single second class railway fare by the shortest route towards journey expenses.

Candidates already in service should submit their applications through proper channel only.

Canvassing in any form will be a serious disqualification.

Applications received after the last date or without complete information or without requisite fee will not be entertained.

Prof. D. Datchanamourthy

CONTROLLER OF EXAMINATIONS